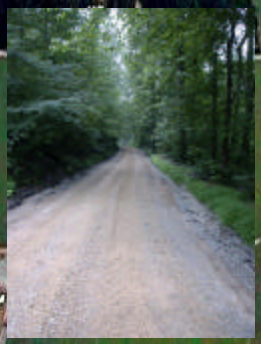
Official Comprehensive Plan

Penns Valley Region, Centre County, PA

Adopted Jan. 30, 2006



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All maps and aerials presented within this Plan rely upon digital information of the Centre County Geographic Information System. While the accuracy of this information is believed to be very high, it should only be used for community planning purposes and cannot be relied upon for definitive site survey delineation.

Brian Auman of SEDA-COG also provided technical consultation on the conduct of several key focus group discussions and town hall meetings.

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Look forward to the future!

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I. Introduction

A. PURPOSE OF THE PLAN

Healthy, attractive and economically-sound communities do not "just happen." They are created through vision and foresight and grow and change successfully with the same. Today, local governments are responsible for guiding growth and development within communities, for setting aside open spaces, and for delivering public services. Like any business, local governments need to chart future plans so that they can assure the efficient use of resources. The preparation of a comprehensive plan provides a deliberate framework of information that can be used to make future decisions regarding local government functions. The Comprehensive Plan further provides a sound legal basis for specific implementing measures, such as zoning and subdivision regulations designed to carry out the intent of the Comprehensive Plan. One definition of comprehensive planning is "the allocation of municipal resources towards municipal goals and objectives"; this definition describes the essence of this work.

The Penns Valley Regional Comprehensive Plan embodies a truly regional effort. The municipalities of Centre Hall and Millheim Boroughs and Gregg, Haines, Miles, Penn and Potter Townships, as well as the Penns Valley Area School District, have come together to prepare a sound plan for the future growth and development of the Penns Valley Region. This regional cooperation has been enhanced by the involvement and mapping data by the Centre County Planning Department in this process. It is noted that Haines Township undertook an independent planning process during the preparation of this Plan and the outcomes of that process were incorporated into this Plan, particularly regarding future land use recommendations contained in Chapter X. Both of these Plans are to act in tandem within Haines Township.

This Comprehensive Plan first sets forth a set of Community Planning Goals. These goals can include broad objectives, such as the provision of adequate housing and employment opportunities, the protection of the environment, and the provision of a balance of public services. They can also seek to correct existing or foreseeable deficiencies or problems, such as improving the design of a particular road intersection or reducing localized flooding through improved storm water management.

Next, this Plan inventories, maps and describes the Region's resources over several chapters. These resources include many features, such as land, streams, roads, utilities, parks, housing, schools, police and fire service, businesses, and so on. Analyses are performed within each of the Plan's chapters to determine their capabilities in meeting the desired future. Then, each chapter makes specific recommendations to improve the capabilities of these in attaining locally-expressed planning goals.

Next, the analyses of resources and recommendations are used together with the Community Planning Goals to develop a future land use scenario and a plan for the future delivery of public and other services. The time frame for this Comprehensive Plan is to the year 2020; all recommendations made within this Plan are structured around this time period.

Finally, implementation strategies are discussed and recommended that will enable the Region's municipalities to set in motion the goals, objectives and recommendations identified in the Plan. In the end, any planning process is meaningless unless its

recommendations find application as part of the Region's business—the protection of public welfare and the delivery of public services.

B. MPC REQUIREMENTS

Pennsylvania's Constitution gives the General Assembly the power to enact laws that protect the public health, safety and general welfare of its citizens. The General Assembly has, in turn, given local municipalities primary responsibility for community comprehensive planning. Municipalities in Pennsylvania are empowered by the Pennsylvania Municipalities Planning Code (MPC), Act 247 of 1968, to prepare and adopt comprehensive plans according to specified requirements and procedures. Revisions to the MPC made by Act 170 of 1988 expanded the subject matter and goals of comprehensive planning to enable municipalities to manage growth more effectively, and to provide greater protection for environmentally sensitive lands and important historic and cultural sites. Furthermore, Act 170 also requires that all counties in Pennsylvania prepare and adopt comprehensive plans and that municipal plans be generally consistent with the adopted county plans. Municipalities are also empowered by this Act to carry out joint planning with one another. Finally, the most recent amendments to the MPC in the year 2000 specifically enable municipalities to work together and develop regional plans for the allocation of growth and development, along with the delivery of public facilities and services.

These MPC standards are the foundation upon which the Comprehensive Plan for the Penns Valley Region is built. This Plan, therefore, is born not only out of a belief that sound planning is the key to a healthy, attractive and economically sound community, but also out of a respect and regard for the laws of the Commonwealth of Pennsylvania.

C. HOW TO USE THIS PLAN

This Comprehensive Plan is designed to serve several important purposes. Principally, the Plan is intended to share with Penns Valley residents a vision for the Region's future. Secondly, it is designed to assist the Region in the administration of land use planning programs. A detailed table of contents appears at the beginning of the text that provides quick reference to the appropriate sections of the Plan. ***Action-oriented recommendations within each of the Plan's chapters are printed in bold, italicized letters so that the decision-maker's attention is immediately drawn to them.*** Many of these recommendations tie in to specific implementation strategies discussed in the Plan's final chapter.

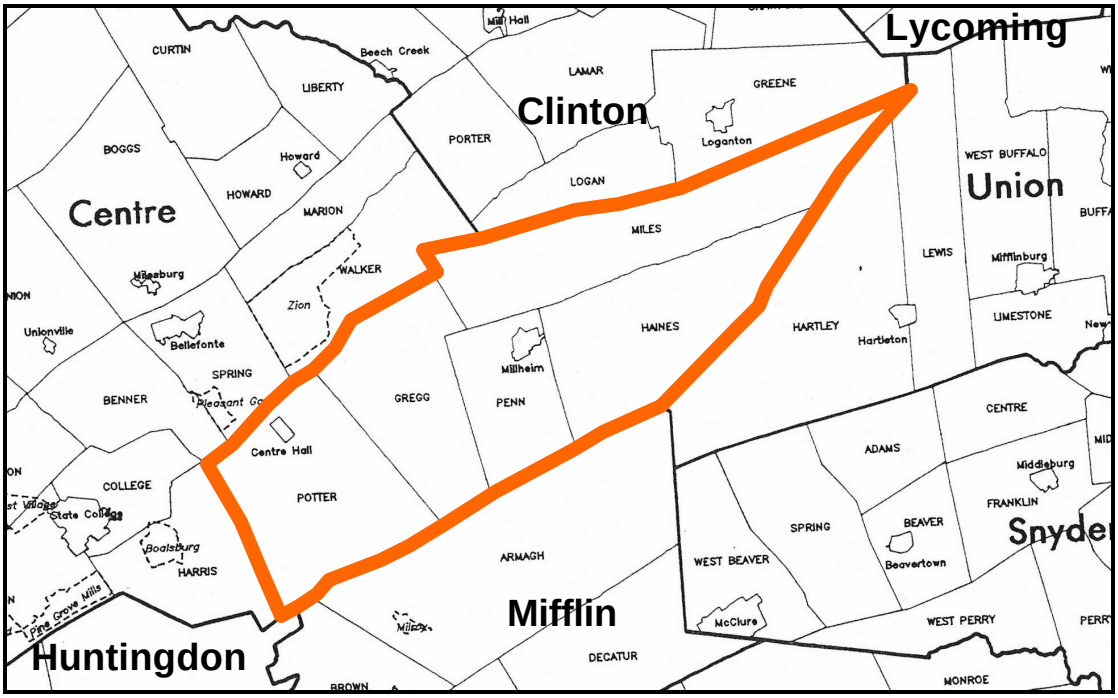
The numerous maps within the Plan have been carefully prepared so that the information can be easily visualized and is meaningful. Related features are composited together so that the reader gains a better understanding of their connection. The many analyses utilized throughout the study are intended to maximize the utility of the findings. Step-by-step descriptions of these methodologies are furnished to enable the reader to gain a better understanding of the issues and their planning implications. All of these features will aid local decision-makers in their evaluation of future planning proposals. Data used to compile the maps in this Plan was largely furnished by the Centre County Planning Department as part of its County-wide Geographic Information System (GIS). Therefore the data is readily consistent with the County's database and new layers of data created by this Plan are similarly compatible with the County's system. Also this data is being used in the preparation of the ongoing update to the Centre County Comprehensive Plan; this should help to ensure that the two Plans are generally consistent as required by the

MPC.

An additional important function of this Plan is its collection of important information. The term *Comprehensive Plan* accurately describes the composition of this report; its contents are quite comprehensive. Accordingly, the Plan provides convenient access to a wealth of up-to-date factual information concerning the Region's resources. This information will not only serve local officials, but also service agencies, property owners, residents, business leaders, and prospective developers. The inventories of existing conditions will also provide the groundwork upon which future Plan updates can be more easily accomplished.

Finally, the Plan provides a future land use scenario that can be useful to many landowners. For example, residents can get an idea of the land uses that are projected around their homes. Prospective developers can use the Plan to package development proposals that conform to the regional and municipal goals, thereby ensuring a smooth development review process. Business leaders can glean a sense of secure investment climate from the Region's future land use scenario. In all, the Plan considers many competing interests and devises a strategy to assure their relative harmonious co-existence. It is hoped that the Plan will become a powerful and practical tool in local decision-making. ***It is important for all persons involved and/or interested in the future of the Penns Valley Region to read and understand this Plan. Local decision-makers should keep the Plan handy when evaluating future development proposals, service adjustments or public investments.***

D. REGIONAL SETTING



As mentioned previously, the Penns Valley Region is composed of Centre Hall and Millheim Boroughs and Gregg, Haines, Miles, Penn and Potter Townships. The Region is also fortunate to coincide with the boundaries of one public school district – namely the Penns Valley Area School District. The Region is situated in the southeastern portion of Centre County nearly in the Centre of the Commonwealth of Pennsylvania. The Region forms a blade that that is about 35 miles long and ranges in width from 11 miles at its

widest to a sharp point in eastern Miles Township. At its closest point, the Region is about 4.5 miles southeast of Bellefonte Borough, the Centre County seat, and 5.5 miles east of the Borough of State College, (which is the home of the Pennsylvania State University).

The Penns Valley Region contains a total of approximately 255 square miles. The Region's proximity to major roads enables it to be economically linked with the many cities of the northeastern US metropolis and the greater Pittsburgh metropolitan area. However, its isolated location in the rural central portion of the state would tend to keep daily commuting within the local economy in and around Centre and nearby Clinton, Huntingdon, Lycoming, Mifflin, Snyder and Union Counties.

The Region's boundaries are man-made. The Region sets at a convergence of several adjoining Counties. Along the northern boundary the Region abuts Greene and Logan Townships in adjoining Clinton County and Benner, Spring and Walker Townships also in Centre County. To the southeast are Hartley and Lewis Townships in adjoining Union County. South of the Region are Armagh and Brown Townships in adjoining Mifflin County and Jackson Township in adjoining Huntingdon County. To the west is Harris Township in Centre County.

Historically, the Region has retained its rural character as a fertile farming valley between two mountain ranges on the north and south. Obviously, Centre Hall and Millheim Boroughs have developed as compact towns and activity areas for the Region along with several smaller crossroad villages. Some suburban development has occurred outside of these towns and villages, but large areas of the Region remain unspoiled.

All that could change with completion of ongoing road projects as new routes for commerce and commuting could present tremendous pressures for residential development and attendant sprawl. This Plan will play a large part in determining whether the Region can retain its rural character despite these external pressures.

Map source: http://www.pennsvalley.net/pvca.html

II. Planning Goals

"*If you don't know where you are going, any road will take you there!*"
-An old saying

To derive the goals for this Plan, members of the Penns Valley Joint Planning Commission were asked to complete a 37-question community development objectives survey. Then, during the winter of 2004, the Committee met and discussed the results of the survey. In addition a visioning exercise was conducted during a town-hall meeting held on May 12, 2004 at the Penns Valley Area High School. As part of this exercise, local residents were given the opportunity to offer input regarding their needs and goals for the Region's future. In addition during the preparation of this Plan monthly updates of the project were published in the "Grapevine" a locally distributed newspaper. The following presents an overall narrative vision of the desired future followed by a detailed listing of specific planning goals for each municipality and the Region.

A. Community Vision

The Penns Valley Region is a collection of neighboring municipalities who share a common vision for the Future. They share the same general location and many of the same natural and cultural resources. Their landscape has a pure and unspoiled quality that reminds residents of times-gone-by for much of the rest of Central Pennsylvania. The local economy has an old-fashioned character that is dominated by local businesses rather than national franchises. The Region treasures these features and hopes to retain them by departing from the typical suburban trends that seem to dominate other areas.

The Region intends to determine its future. Officials from each of the participating municipalities understand the need to act decisively if the Region is to be preserved and are committed to developing regional solutions and implementation strategies. The Penns Valley Joint Planning Commission has undertaken this Plan with financial assistance from the state and has been working towards this regional plan for several years; their commitment is solid.

Locals foresee several possible futures for the Region, largely predicated upon the path of major development pressures that are likely to result from the eventual improvement of the US Route 322 corridor. Access provided by this new highway could change the past economic conditions and introduce unwanted growth that is inconsistent with the Region's paramount goal to protect its rural way-of-life.

The Region accepts its role as an important highway link along US Route 322. However, officials won't forsake their valued community character in response to this new road. Instead local officials intend to devise a strategy that will enable this new road to convey vehicles into and through the Region quickly and efficiently with strictly controlled points of local access. In addition they mean to proactively accommodate their fair share of growth and development in a compact and dispersed configuration that

reflects the Region's past development patterns rather than the consumptive sprawling patterns of contemporary society. With PennDOT's recent postponement of major local highway improvement projects within the Region, local officials also want to use this Plan as a means of exploring best roadway alignment options and other traffic-carrying alternatives that would be more consistent with the Region's basic community planning goals.

As a whole officials from the Region recognize that much of their landscape is comprised of important and sensitive natural features that should be immune from rampant suburban growth. They also recognize their reliance upon their large undisturbed natural settings to purify public water sources and offer recreation-based tourism. Finally, they are committed to preserving productive agricultural areas amid their fertile valley.

However growth is inevitable and the Region must accommodate its "fair-share" under Pennsylvania law. Potter and Gregg Townships are closest to the leading edge of growth and development that is sweeping through much of Centre County. They understand that their role within the Region will likely involve a greater share of planned development. They are prepared to accept and manage this development pressure. Residential growth will be closely tied with projected population trends in settings that are efficient and compact. These areas will occur as (1) infill developments amid settings that have experienced prior growth and have been served with public utilities, (2) traditional neighborhood extensions around the Boroughs and Villages, and (3) cluster developments with common open spaces on the suburban fringe.

Haines, Miles and Penn Townships hope to avoid, or at least postpone, significant newfound residential development pressure and impacts and preserve their predominate rural character. Local officials in these Townships want to protect their rural way-of-life by focusing new developments around existing villages and towns.

Centre Hall and Millheim Boroughs and the various Villages along PA Routes 45 and 192 contain considerable development and hope to retain and strengthen their sense of community through historic preservation and local economic revitalization. Both Boroughs worry about traffic congestion and are committed to preserving their "Main Streetscapes" despite pressures to widen major highways (PA Routes 45 & 144). Residents of the Region will rely upon the shops, offices, restaurants and cafes, social and civic agencies and other related uses that are located here and in the smaller villages. Uses will be selected that can be supported by local daily demands, promote foot traffic and enable the efficient adaptive reuse of historic buildings that add to the charm of the towns and villages. Millheim Borough also considers its existing farmland an important component of its character.

All of the Region's municipalities hope to share in some commercial and light industrial growth to generate locally based employment and tax revenues. Larger highway commercial uses and industries will be targeted at existing concentrations of such uses with incentives to improve function and appearance through coordination of vehicular access, parking/loading, signs, landscaping and stormwater management. The Region will promote new enterprises that add value to locally produced goods and services;

some of these will occur within confined commercial and industrial locations while others will occur throughout the rural countryside.

The entire Region understands its reliance upon the PA Route 45, 144 and 192 corridors which are the major thoroughfares linking the Region with Lewisburg and, more importantly, the Centre Region. All officials want to protect these highways' ability to efficiently move vehicles across the Region's vast east-west dimension; this will require careful location and configuration of planned growth areas with limited points of property access.

Out in the country, residents are largely undisturbed by the bustle of modern life. Their large lots protect privacy and rural habits. Some crossroad and home-based businesses are permitted to encourage local employment, but only if such uses don't interfere with their neighbors' residences. For new uses, lots are kept smaller than in the past but tied with the protection of large areas of undisturbed terrain. New lotting and access techniques (rural clusters, flag lots and shared driveways) enable new homes to "tuck" into the "nooks and crannies" produced by the Region's rugged landscape while protecting its habitats and important watersheds. Property access regulations will minimize the number of driveways along the Region's major roads.

B. Community Planning Goals

The following goals were derived from discussions with local officials and citizens of the Region, plus the review of completed surveys by local officials. These specific goals will guide the rest of this effort by allocating the Region's resources towards expressed needs. The goals are presented by functional category.

Goal	Centre Hall Boro.	Gregg Twp.	Haines Twp.	Miles Twp.	Millheim Boro.	Penn Twp.	Potter Twp.	Region
Environmental Goals								
1. Protect the watersheds and wellheads throughout the Region.								X
2. Preserve prime farmlands and productive farms amid historic settings.								X
3. Strengthen agricultural preservation techniques and devise means of financially assisting active farmers.								X
4. Develop strategies to protect important natural features (eg. forested mountains, PA Gamelands, caves, State Parks and Forests and the Seven Mountains Scout Camp.								X
5. Integrate the protection of important natural features in "common-sense" cluster developments that are proposed on the edge of town.								X
6. Steer development away from steep slopes, floodplains, wetlands and limestone geology to avoid stormwater and drainage problems.								X
7. Promote greenways along important streams as a means of protecting local surface water quality and providing wildlife habitats.								X

Goal	Centre Hall Boro.	Gregg Twp.	Haines Twp.	Miles Twp.	Millheim Boro.	Penn Twp.	Potter Twp.	Region
8. Inventory and acknowledge properties that have sold or donated conservation/agricultural easements that prevent their future development and Agricultural Security Areas.								X
9. Locate developments so as not to detract from the rural historic character of the Region by keeping new developments off of prominent ridges and hilltops.								X
10. Promote eco-tourism within the Region.								X
Community Development Goals								
11. Promote continuous vitalization of the Main Street area through adaptive reuse of vacant and underutilized buildings. (Boroughs and Villages)								X
12. Promote residential use of upper-level stories within the downtown that are vacant and/or underutilized.	X				X			
13. Devise strategies to compliment programs of historic preservation.								X
14. Allocate and coordinate land uses on a regional basis.								X
15. Bring the comprehensive plan and other land use controls into better conformity.								X
16. Permit cluster residential developments with independent low-tech sewage disposal systems.		X	X					
17. Coordinate planned growth areas with planned public utility service areas.								X
18. Configure rural residential development that does not "cut-off" access to rear areas of the parcel.			X					
19. Coordinate proposed growth areas with projected population so as to properly size growth areas and relieve development pressures in outlying rural areas.		X					X	
20. Focus density in new "common-sense" neighborhoods located on the edge of town as a means of reducing development pressure on the outlying rural landscape.								X
21. Locate and configure commercial and industrial nodes at logical locations in each municipality to promote local business ownership and operation, offer locally-based employment and generate local tax revenues.								X
22. Promote the creation of new businesses that add value to locally produced products and services (eg. processing and sale of local farm goods, tourism and etc.)								X

Goal	Centre Hall Boro.	Gregg Twp.	Haines Twp.	Miles Twp.	Millheim Boro.	Penn Twp.	Potter Twp.	Region
23. Vigorously defend the rural character and lifestyle throughout much of the Region.								X
24. Provide suitable strategies for the improvement of "run-down" areas.			X		X			
25. Seek to improve the appearance and function of older strip commercial developments and avoid similar configurations in the future that add congestion, particularly along PA Route 45.								X
26. Promote market support for existing uses that serve the daily needs of the local Region within the downtown areas of Centre Hall and Millheim Boroughs and smaller Villages.								X
27. Rely upon larger commercial centers in nearby areas for regional commercial goods and services.								X
28. Encourage rural accessory businesses that can provide for local employment and contribute to an expanded tax base yet remain compatible within an historic rural setting.		X	X	X		X	X	
29. Discourage large-scale commercial and industrial developments due to a lack of sufficient road access and infrastructure.								X
30. Acknowledge the presence of existing large-scale quarry operations and small-scale shale pits and provide for their continued operation in a manner that minimizes land use conflict and environmental impact.		X	X			X	X	
31. Provide an overall Regional land use and traffic strategy that can be used, upon completion, to better market the Region's tourist-based features and activities without inviting unwanted adverse uses and impact.								X
Planning Program Goals								
32. Update planning policies to reflect current needs and conditions.								X
33. Provide specific planning recommendations to guide zoning policies.								X
34. Devise a technically competent and legally defensible strategy to accommodate a regional fair-share of growth.								X
35. Structure the Plan and its policies to enable a regional allocation of various land uses through the future development of one regional or individual zoning ordinance(s).								X
36. Devise a pro-active land use policy that eliminates the need for incremental rezoning and development reviews that lack coordination and overall vision.								X
37. Provide for a firm, yet cooperative, approach to development reviews that enable local officials to negotiate with prospective developers for needed public improvements.								X
38. Engage a proactive plan development process that invites public participation and awareness.								X
39. Prepare this comprehensive plan in an unbiased manner that reflects direction from local officials and avoids undue influence from special interest groups.								X
40. Develop an ongoing process of dialog between the municipalities to assist each other and meet future challenges together.								X

Goal	Centre Hall Boro.	Gregg Twp.	Haines Twp.	Miles Twp.	Millheim Boro.	Penn Twp.	Potter Twp.	Region
41. Coordinate the findings of this Plan with the ongoing individual comprehensive planning process.			X					
42. Coordinate this Plan with ongoing planning underway at the County level.								X
43. Continue to rely upon the Centre County Planning Office (CCPO) for review of proposed subdivision and land development proposals and inform the CCPO of needed adjustments to their SLDO and review process.	X	X		X	X	X	X	
Public Facilities and Services Goals								
44. Consider the creation of a local/regional police force.	X		X		X		X	
45. Continue reliance upon State Police protection.		X	X	X		X		
46. Supplement the School District's past offering of local park and recreation facilities and programs.								X
47. Expand opportunities for soccer fields in population centers and at the High School.								X
48. Add/improve neighborhood parks in areas lacking such facilities especially in Potter Township, Millheim and Aaronsburg.			X		X		X	
49. Continue to rely upon, and promote greater use of the community pool located in Millheim Borough.								X
50. Promote linear parks for hiking, biking and other similar activities.								X
51. Explore the possibility of creating a skateboard park.			X		X			
52. Coordinate local planning policies with the need to support local volunteer emergency services.								X
53. Consider the creation of a regional organization to help coordinate volunteer and fund-raising activities of local fire and ambulance companies.								X
54. Seek to formally link the Region's overall planning review processes with that of the public School District.								X
Public Utilities Goals								
55. Update and centralize public utility planning into one "understood" and cohesive strategy to serve the Region.								X
56. Identify needed remedial public utility system improvements and expansions to serve proposed growth.								X
57. Coordinate planned urban growth areas within compact planned public sewer and water service areas.								X
58. Protect the Region's watersheds and wellheads that serve as public water sources.								X
59. Investigate the use of new low-tech community sewers to serve new neighborhoods planned around towns and villages.		X	X					
60. Coordinate zoning policies with the availability public utilities.	X	X	X		X		X	
61. Explore the development of telecommunications technology (including broadband) as a means of serving economic development.								X

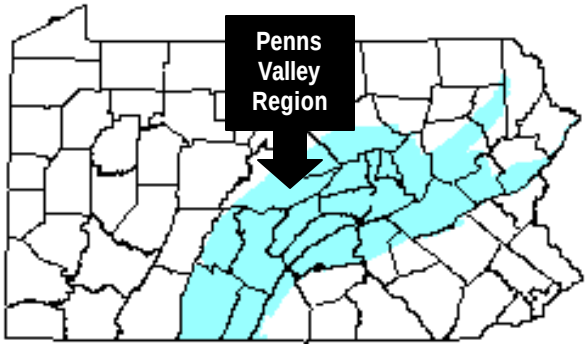
Goal	Centre Hall Boro.	Gregg Twp.	Haines Twp.	Miles Twp.	Millheim Boro.	Penn Twp.	Potter Twp.	Region
Transportation Goals								
63. Attempt to increase parking capacity downtown as a means of encouraging market support by local and Regional patrons.					X			
64. Protect the low-speed traffic-carrying capacity of "Main Streets" and the historic streetscape. (Boroughs and Villages)								X
65. Protect the traffic-carrying capacity at posted speeds along PA Route 45 outside of Millheim and the adjoining Villages.		X	X			X	X	
66. Investigate the feasibility of creating a bypass link between PA Routes 45 and 192 near Centre Hall before developments block the alignment.	X						X	
67. Advocate the Region's preferred alignment for the SCCCTS project (US Route 322) connection with the Centre Region.								X
68. Be mindful of the special needs of the Region's plain-sect residents who rely largely upon horse & buggy travel.								X
69. Assess current road conditions and compare with adopted design standards.								X
70. Promote pedestrian travel within the Boroughs and Villages and to their adjoining neighborhoods.								X
71. Monitor the long range plans concerning major road corridors and public transit that may affect the Region.								X
72. Coordinate future land uses with roads that have sufficient capacity to handle the additional traffic.								X
73. Avoid the improvement of additional roadway capacity that would lead to additional local development pressure.		X	X	X		X		
74. Explore the possibility of mass transit service to the Region.								X
75. Promote interconnected neighborhoods and streets.								X

III. Natural & Cultural Features

This chapter will describe and map the Penns Valley Region's natural and cultural resources. This information will be extremely useful in allocating future land uses within the Region, as well as in formulating policies and implementing measures that protect these natural and cultural resources.

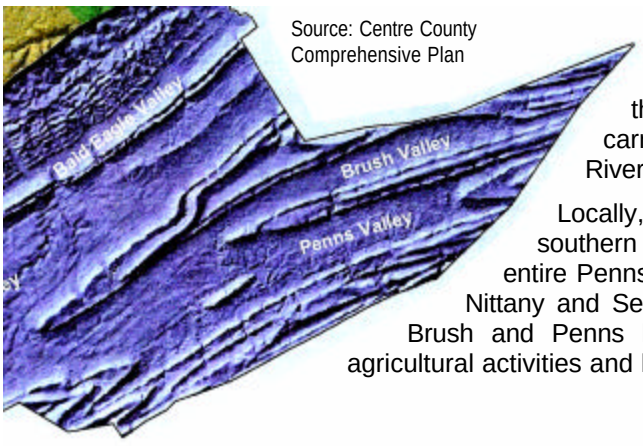
A. PHYSIOGRAPHY

The Penns Valley Region (PVR) is situated within the Appalachian Mountain Section - Ridge and Valley Province. The Appalachian Mountain Section occurs as a northeast-southwest, band that curves from Bedford and Fulton Counties in the southwest to Lackawanna, Carbon, Monroe, and Pike Counties in the northeast. This is referred to by some as the backbone of Pennsylvania as viewed from satellite imagery as its rugged mountains resemble the vertebrae of a spine. The southern half of Centre County lies within this physoigraphic section.



It consists of numerous, long, narrow mountain ridges separated by narrow to wide valleys (lowlands). The tops of the ridges are always several hundred feet higher than the adjacent valley, and some ridges are more than a thousand feet higher than the adjacent valley. Very tough sandstones occur at the crests of the ridges. Relatively soft shales and siltstones occur in most of the lowlands. Some of the lowlands are underlain by limestone and dolomite; this is particularly true within the Penns Valley Region.

At one time many millions of years ago the rocks in this Section were flat lying. Then they were compressed toward the northwest by immense pressure coming from the southeast. This pressure buckled the rocks into long, linear folds called anticlines (upward-buckled rocks) and synclines (downward-buckled rocks). Erosion of the rocks in these adjacent anticlines and synclines created the ridges and valleys of the Appalachian Mountain Section. The shales and siltstones are eroded more easily than the sandstones. Thus, as erosion proceeds, the slowly eroded sandstones form ridges while the shales and siltstones are eroded more rapidly to form the lowlands.



Source: Centre County Comprehensive Plan

The Potomac and Delaware Rivers drain limited areas of the section in southeast and northeast Pennsylvania, respectively; however, water eroding the ridges and valleys of the Penns Valley Region are carried away by the West Branch of the Susquehanna River to the Chesapeake Bay.[1]

Locally, the Ridge and Valley Province begins along the southern edge of the Allegheny Plateau and includes the entire Penns Valley Region. Here the steeply wooded ridges of Nittany and Seven Mountains and Egg Hill are separated by the Brush and Penns limestone valleys that offer favorable settings for agricultural activities and human settlements.

[1] http://www.dcnr.state.pa.us/topogeo/map13/13ams.htm

B. GEOLOGY

The geology of an area plays an important role in determining the surfacial shape of the environment. Throughout the ages, underlying rock is subjected to natural weathering forces that chemically and physically erode its original shape. The physical properties of underlying rock determine its strength and suitability to support development, including the ease of excavation, and ability to support the foundations of various structural types. In addition the geology offers valuable mineral deposits that can be the source of economy and construction materials.

GEOLOGIC FORMATIONS

The *Geology Map* illustrates the geologic conditions within the Region. All of the geologic formations within the Region were formed during the Silurian and Ordovician Eras, which occurred between 492 and 412 million years ago. All of the bedrock in the Region area was originally deposited on the bottom of a shallow sea in flat, mostly horizontal layers. Over time, the layers of sediment were compressed and hardened into rock. Compressive forces, acting from the southeast, pushed the bedrock and deformed it into folded shapes. Over a long period of time, erosion wore down the early Appalachian Mountains. Erosion acted fastest on the weak rocks (such as limestone and shale), and slowest on the durable rocks (such as sandstone). Today's landscape consists of ridges, topped by sandstone, separated by limestone or shale valleys.[2]

The parallel mountain ridges are formed by the **Bald Eagle, and Juniata, Reedsville Formations and the Tuscarora and Clinton Formations**. These formations are largely comprised of interbedded sandstone and shale that is relatively hard and resistant to erosion having withstood the effects of weathering over the millennia. These formations tend to yield the lowest groundwater amounts due to their high topographic position and their dense and compact structure. Typical well yields range between 10 to 23 gallons per minute (gpm). These formations produce the Region's Hazelton, Ladig, Andover and Ungers soils.

Panoramic view of western Penns Valley as seem from atop Mount Nittany. Source: Norman Lathbury

Conversely, the Region's valleys are formed by **the Axeman, Bellefonte, Benner, and Coburn**. Physical and chemical weathering over the ages have caused these softer formations to erode and settle into the valley. These formations are typically characterized with limestone, dolomite, and various other interbedded materials. These low-lying formations yield an abundance of groundwater through frequent joint and solution channels and cavities. Typical yields range between 50 and 130 gallons per minute (gpm). These same water-carrying features also present the opportunity for groundwater contamination. The Valentine member is mined extensively and other limestone formations are quarried for road materials. These formations produce the Region's Hagerstown, Opequon, Hublersburg, Morrison, Murrill and Millheim soils.

[2] Groundwater and Surface Water Resources of the Upper Penns Creek Watershed. Pg.3

The following table has been constructed to show the relationship between the geology of the Region and four important land use planning considerations. Porosity and permeability, ease of excavation, foundation stability, and groundwater availability are integral to the planning of land use activities. This table is intended for reference use only and can be utilized to determine general characteristics of formation types.

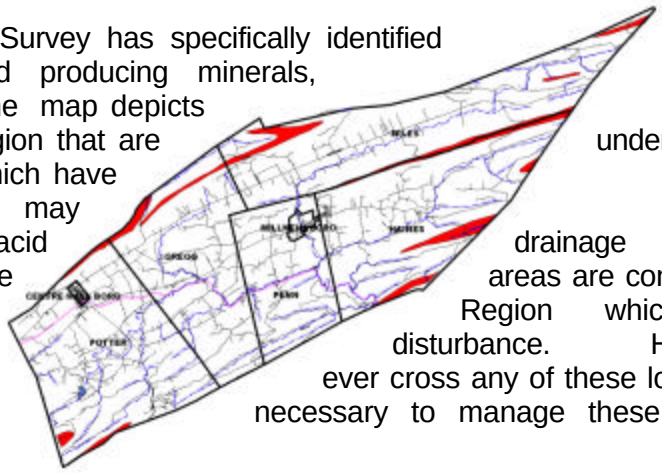
The ***porosity*** and ***permeability*** of a geologic formation refers to how quickly and easily water, air, and other substances pass through the rock. A classification of low means the rock is essentially impermeable. A classification of moderate refers to a permeability of less than 14 feet per day, while high permeability means that substances may pass through the rock at a rate between 14 and 847 feet per day. The ***ease of excavation*** refers to how pliable the rock is when moving or drilling it. The classifications range from easy to difficult. ***Foundation stability*** can be classified as either good, fair, or poor. Good foundation stability means that the bearing capacity of the rock is sufficient for the heaviest classes of construction, except where located on intensely fractured zones or solution openings. Fair foundation stability is determined by the location of the water table, type of rock composition, and weathering depth. Poor foundation stability means that foundations must be artificially stabilized to allow sufficient bearing capacity for construction.

GEOLOGIC FORMATION CHARACTERISTICS

Formation Name (Composition)	Symbol	Porosity & Permeability	Ease of Excavation	Foundation Stability	Groundwater
AXEMAN FORMATION Light-gray limestone, fossiliferous, coarsely crystalline. Interbedded with silty, fine-grained dolomitic limestone; some oolitic and conglomeratic limestone, Flint concretions and chert occur throughout the unit.. In certain areas, limonite has replaced oolitic limestone. Maximum thickness is about 500 feet..	Oa	Joint and solution-channel openings provide a secondary porosity of moderate to high magnitude; moderate permeability.	Difficult; bedrock pinnacles are a special problem; moderate drilling rate due to the presence of chert and flint.	Good; should be excavated to uniformly sound material. Should be thoroughly investigated for solution openings that could lead to surface collapse..	Median yield is 100 gpm. Water quality is generally good but easily contaminated. Hardness is sometimes high.
BALD EAGLE FORMATION Gray to reddish-gray to brownish gray, fine-to-coarse grained, crossbedded sandstone and quartz-pebble conglomerate. Maximum thickness is about 1,000 feet.	Obe	Interstitial and joint openings produce low to moderate porosity. Moderate permeability.	Difficult; drillablity is slow.	Good; should be excavated to sound material.	Median yield is 10 gpm. In most areas very poor topographic position for groundwater development. Best wells in valley and on hill slopes.
BELLEFONTE FORMATION Light-to-medium gray, tan-weathering, very fine grained dolomite. Minor sandstone beds; some chert maximum thickness is about 2100 feet.	Obf	Joint and solution channel openings provide a low-to-moderate secondary porosity. Low permeability.	Difficult; bedrock pinnacles are a special problem; moderate drilling rate due to the presence of chert beds lenses. Quartz sand slows the drilling rate.	Good; should be thouroughly investigated for solution openings.	Median yield is 100 gpm. Industrial and public supplies are available. Highest yields from fractures and solution cavities.
BENNER FORMATION Light-to-dark gray, very fine crystalline limestone at top. An agrillaceous limestone containing interbedded metabentonite beds at base. Maximum thickness of 180 feet.	Obl	Joints produce a secondary porosity of moderate to high magnitude. Low permeability.	Difficult; bedrock pinnacles are a special problem; moderate drilling rate.	Good; should be thouroughly investigated for solution openings	Yield of 50 gpm. Excellent quality in most areas.
COBURN FORMATION (LOYSBURG & NEALMONT) Medium to very dark gray fossiliferous,	Ocl and Ocn	Joint and solution openings provide a secondary porosity	Difficult; bedrock pinnacles are a special problem;	Fair, should be excavated to sound material	Median yield of 130 gpm. Industrial and public groundwater

GEOLOGIC FORMATION CHARACTERISTICS					
Formation Name (Composition)	**Symbol**	**Porosity & Permeability**	**Ease of Excavation**	**Foundation Stability**	**Groundwater**
shaly limestone; 400 feet thick.		of moderate to high magnitude; high permeability.	moderate drilling rate.	and investigated for possible collapse areas.	supplies are available. Quality is good but easily contaminated. Harness may be high and hydrogen sulfide is sometimes present.
JUNIATA FORMATION Brownish-red, fine grained to conglomeratic, quartzitic sandstone having well-developed crossbedding. Interbedded red shale. Maximum thickness is 1125 feet.	Oj	Interstitial porosity is present. Low secondary porosity produced by joint, fault and bedding-plane openings. Low permeability.	Difficult; slow drilling rate.	Good; should be excavated to sound material.	Median yield of reported wells is 17 gpm. Generally poor topographic position for groundwater development. Water quality is usually good.
REEDSVILLE FORMATION Dark-gray shale containing sandy to silty shale interbeds. Fossiliferous at top. At least 1000 feet thick.	Or	Low secondary porosity produced by joint, fault and bedding-plane openings. Low permeability.	Moderately easy. Slight rebound may be a special problem. Fast drilling rate. Sandy shale interbeds slow the drilling rate	Good; should be excavated to sound material.	Median yield of 15 gpm.. Most favorable well sites in upland stream valleys. Fracture openings decrease in number and size as depth increases. Presence of some iron and hydrogen sulfide may cause water quality problems.
CLINTON GROUP FORMATION Light to dark-gray fossiliferous sandstone. Hematitic, oolitic sandstone and shale. Light olive gray to brownish gray fossiliferous shale with some limestone and iron sandstone. 890 feet thick.	Sc	Low secondary porosity produced by joint and bedding-plane openings. Low permeability.	Moderately difficult. Moderate to slow drilling rate. Iron sandstone beds slow the drilling rate.	Good. Should be excavated to sound material.	Median yield is 12 gpm. Ridge-forming sandstones have very poor topographic position for groundwater development.
TUSCARORA FORMATION Sandstone and quartzite. Fine to coarsely grained. White sometimes red and green. Tough, firmly cemented, cross-bedded, conglomeratic in part. Includes interbedded red and nonred sandstone at top. Maximum thickness is 1500 feet..	St	Intergranular porosity in conglomerate. Joint openings provide a low-to-moderate secondary porosity. Low permeability.	Difficult. Boulder fields on lower slopes beneath outcrop areas are a special problem. Drilling rate is slow.	Good, excavate to sound bedrock.	Median yield is 23 gpm. High topographic position is unfavorable for high yields. Water quality is usually good with soft water.

Source: Alan R. Geyer and J. Peter Wilshusen, *Engineering Characteristics of the Rocks of Pennsylvania* (Harrisburg, PA: Pennsylvania Geologic Survey, 1982).



The PA DCNR Geological Survey has specifically identified various formations that have acid producing minerals, primarily pyrite. This red areas on the map depicts areas within the Penns Valley Region that are underlain by the Tuscarora Formation which have such properties. These areas may present difficulties associated with acid drainage when excavated. Fortunately, these areas are confined to the ridge tops within the Region which are planned for little to no disturbance. However, should the SCCCTS route ever cross any of these locations, specific care will be necessary to manage these difficult environmental conditions.

GROUNDWATER PROTECTION

Geology is also a primary determinant of ***groundwater quality and quantity***, as shown in the foregoing table. Groundwater is surface water that has seeped into and is contained by underground geological formations called aquifers. Water stored in aquifers is sometimes released to the surface through springs or can be pumped to the surface through wells. Groundwater aquifers are part of an interconnected network that includes surface waters, such as streams, ponds, wetlands, and lakes. Aquifers regulate the levels and flow rates of these surface waters by collecting and retaining water reaching the ground and gradually releasing it during dry periods.

Some of the primary geological determinants of groundwater quality and quantity are the type, structure, permeability, porosity, and chemical composition of the bedrock formations present in the area. An understanding of local groundwater conditions is necessary to (1) plan for future public sewer and water needs, (2) allocate future land uses so as to protect important groundwater recharge areas, and (3) protect existing and potential future groundwater sources from contamination.

A typical household with three family members requires an average flow of 0.2 to 0.4 gpm with a peak rate of use ranging between 3 and 5 gpm. ***The upland geologic formations of the Region are characterized by geologic formations that average between 10-23 gpm that can adequately accommodate a sparsely-developed rural land use pattern.*** The lower-lying valley formations and their limestones and dolomites provide for more ample groundwater yields that range between 50 to 130 gpm. ***Public and industrial water supplies within the Region that rely upon wells or springs for source should be located in the vicinity of these carbonate formations to take advantage of the abundant groundwater supplies. The Nealmont formation (limestone) produces two of the highest-yield springs within Pennsylvania:***

Significant Springs within the Penns Valley Region			
Spring Name	**Municipality**	**Median Yield**	**Uses Served**
Rising Spring	Gregg Township	6000 gpm	Unknown
Penns Cave Spring	Gregg Township	6000 gpm	Commercial cave

Source: PA Geological Survey, Outstanding Scenic Geological Features of Pennsylvania, Vols. 1 (1979) & 2 (1987).

The high groundwater yields of the Penns Valley are a mixed blessing. The characteristics of the geology that enable it to convey large quantities of groundwater also expose it to ready contamination and draw-down. Just as many streams have become polluted by the surface runoff from domestic, farm and animal waste and urban runoff, so too have some of our underground water supplies. These contaminants are introduced to the groundwater via sinkholes and closed depressions in the water-soluble limestone. From there, enlarged joints, underground caverns and waterways allow for rapid dispersion throughout the aquifer and can contaminate private and community water sources located miles away.

Unfortunately, quality alone does not suffer by the intervention of our activities. Major disruption of a groundwater drainage system may diminish the quantity of groundwater thus altering surface and subsurface drainage patterns. One disruption problem exits around deep limestone mines where large amounts of groundwater are pumped to keep the mines from flooding, causing water tables to be lowered in these areas. Local

groundwater flow areas are sometimes reversed around the mines because of this activity.

As a general policy, future development areas should be directed to ensure the protection and economical use of municipal and private water supplies. However, such sources should be routinely monitored and treated as necessary due to the vulnerability of this groundwater from contamination via the widespread solution channels. In addition, local officials should actively engage in pursuits to protect these invaluable water resources. Wellhead and springhead protection safe-guarding public groundwater sources is also a particularly sound investment because protection is more effective and less expensive than cleaning a contaminated groundwater source, which may cost 30-40 times more than initial protection.

Pennsylvania has an active program to help public water systems to manage source water quality and quantity, called the Source Water Protection Program. Source Water Protection consists of studying a water supply source, assessing the area that provides water to the water source, and inventorying land use activities in the area. Pennsylvania regulations require public water suppliers to maintain strict control of a "wellhead protection area" (between 100 feet and 400 feet) around a water source. Source Water Protection is a voluntary process to provide better protection of public health. Source Water Protection makes sense. Pennsylvania water suppliers perform extensive testing of water quality before the water is served to the public. In addition, public water suppliers perform regular, scheduled tests of water quality to ensure that the source quality is suitable. Pennsylvania water suppliers also use well construction procedures that help to protect source water quality. New public water supply wells must use casing and grout.

- casing is steel pipe that keeps shallow, less-pure water out of the well;
- grout (usually cement) is pumped into the space between the casing and the open bore hole in order to seal out shallow, less pure water.[3]

Decades ago, it was a common practice to dispose of our wastes at convenient, low points such as sinkholes and mountain gaps. Today, with better scientific information on the health effects of common chemicals, we have learned that improper waste management can have some very undesirable consequences. For example, the contents of a full 2 ½ gallon gasoline container could make the drinking water for a town of 1,000 people unfit to drink for almost two months!

Homeowners can do a number of things to protect their home water supplies:

- New wells benefit from the use of casing and grout.
- Periodic water quality testing may be beneficial. Some useful tests include coliform, bacteria and nitrate-nitrogen.
- Protect your water quality by being careful with chemicals and fuels near the well.
- Some of the most common problems with home water supplies come from malfunctioning septic systems. Pump your septic tank regularly, and inspect your leach bed for proper functioning.
- If you use water treatment (such as softeners or disinfection), check the treatment equipment regularly.[4]

[3] Groundwater and Surface Water Resources of the Upper Penns Creek Watershed. Pgs. 17-18
[4] Ibid. pags. 18-19

Local officials understand the value of protecting their unique and important watersheds. Several former efforts and plans have begun to yield benefits to the Region. Most notable are the efforts underway by the Penns Valley Conservation Association (PVCA). The Penns Valley Conservation Association (PVCA) is a nonprofit conservation group comprised of volunteers formed in 1991 to act as a steward of the Penns Valley region of Centre County, Pennsylvania. Their mission is to sustain the region as a healthy and beautiful place to live, work, and do business with respect to its environment and heritage.

PVCA's goals are to conserve the region's current high quality of water and air; to protect its wildlife habitats; and to preserve its historical communities. Wise use of natural resources for sustainable economic development is also a PVCA interest.

They're proud of their work to protect the coldwater fisheries Pine and Elk Creek. PVCA led the successful effort to designate as Exceptional Value waters (in Pennsylvania's stream classification system) portions of Pine and Elk tributaries of the high-quality trout stream and historical waterway Penns Creek. Benefits of specially protecting Pine and Elk creeks go to wild trout spawn and other aquatic life in those tributaries; to recreational fishing in the region; to the preservation of valued natural and cultural resources; and to clean water supply for the town of Millheim.[5]

In addition, the PVCA also sponsored the development of the Penns Creek Watershed Assessment that details many of the environmental conditions within the Region. While this plan is comprehensive in scope it was not prepared to officially act as an Act 167 Stormwater Management Plan. ***Local and County officials along with the PVCA should commit to the preparation of this Plan so that specific stormwater management strategies can be developed and implemented via ordinance.***

Finally the Centre County Comprehensive Plan lists a number of other groundwater-related recommendations for local officials that seem relevant within the Region as follows:

- ***Educate residents about water conservation;***
- ***Provide guidance on the proper construction and abandonment of wells;***
- ***Ensure the proper handing and disposal of wastes;***
- ***Promote watershed and sinkhole cleanup activities;***
- ***Adjust subdivision requirements to encourage conservation cluster developments with lower impervious coverages;***
- ***Encourage stormwater retention in new developments;***
- ***Reduce maximum lot coverages in environmentally-sensitive areas; and,***
- ***Adopt on-lot sewer maintenance programs to prevent malfunctioning systems.***

[5] http://www.pennsvalley.net/pvca.html

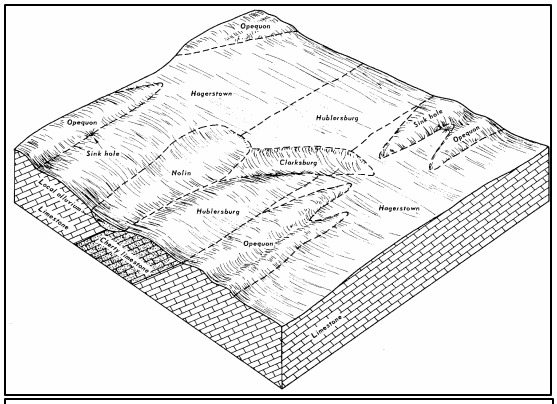
Many of these same recommendations are incorporated into the recently adopted Susquehanna River Basin Commission's Groundwater Management Plan for application across the entire River's vast drainage area. More information on this Plan can be found at:

www.srbc.net/groundwater-management.htm.

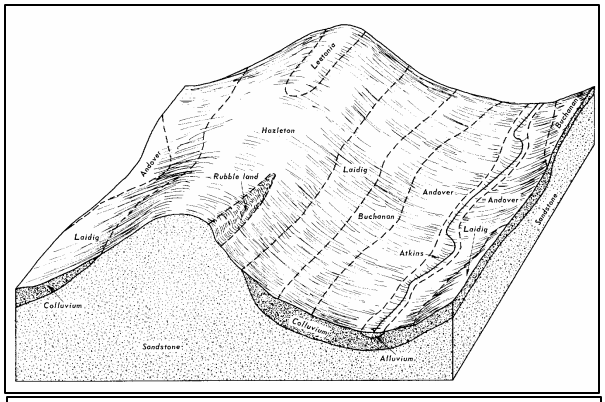
C. SOILS

The constant weathering of geologic formations produces various soil types. The capabilities and constraints exhibited by these soils are related to the geologic characteristics of the underlying rock and the local climatic conditions. A soils analysis is essential to planning for future land uses, which are best located on soils that are suitable and have complementary characteristics for specific land uses. For example, agricultural land uses are usually found where soils are level, well-drained and fertile. Residential land uses are suitably located where soils are fairly level and sufficiently above bedrock and the water table. The appropriate siting of development significantly reduces the costs associated with excavating a foundation, as well as locating and designing an on-lot sewage disposal system. Finally, industrial uses favor soils that are relatively flat and sturdy so as to withstand the heavy weights associated with the operation of large plants.

With its varied topographic and geologic foundation the Penns Valley Region has a complex soils structure. Over 100 different soil types can be found within the Region. Like with the geology the soils fall into two principal categories. The highlands are comprised of Hazelton-Ladig-Andover, and the Berks-Weikert soil families. The valleys primarily consist of the Hagerstown-Opequon-Hublersburg, Opequon-Hagerstown, Murrill and the Edom-Millheim soils associations. The below diagrams are photo reductions of those contained within the Centre County Soils Survey, August 1981.



Typical profile for "valley" soils



Typical profile for "ridge" soils

P

PRIME FARMLAND

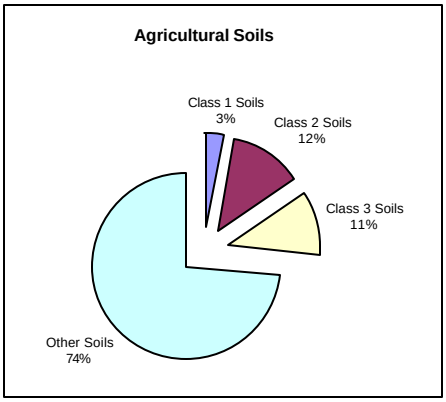
Section 604.3. of the Pennsylvania Municipalities Planning Code requires municipalities to develop zoning ordinances that "preserve prime agriculture and farmland considering topography, soil type and classification and present use."[6] The United States Department of Agriculture (USDA) rates all soil suitability for agricultural purposes and assigns a numerical rating from Class I to Class VII. ***Prime farmland*** soils are those soils with an

[6] PA Municipalities Planning Code, Act 247, as amended, Section 604.3.

agricultural rating of Class I or II. In addition, the USDA considers Class III soils to be of ***Statewide importance*** to agriculture. The USDA describes prime agricultural land as "the land that is best suited for producing food, feed, forage, fiber and oilseed crops." It possesses the soil quality, growing season and water supply needed to economically produce a sustained high yield of crops when it is treated and managed using acceptable farming methods. Prime farmlands are rich in chemical nutrients, have good permeability to air and water with few rocks, are well-drained but resistant to erosion, and have relatively flat topography. Prime farmlands produce the highest yields with minimal inputs of energy and economic resources, and farming them results in the least damage to the environment. The USDA encourages all levels of government and private individuals to effectively use these valuable resources to meet the nation's food and fiber needs.

The prime farmlands of the Brush Valley. Source: Norman Lathbury

The lowlands of the valley have considerable mass of prime farmlands. About 25,422 acres are Class 1 & 2 prime agricultural soils. The foothills of the adjoining ridges also have some 18,407 acres of Class III Soils of Statewide Importance. Unfortunately, the soils most suitable for agricultural purposes are also those most suitable for development, creating competition between these uses for these soils, and resulting in the loss and fragmentation of the most productive farmlands. ***Prime farm soils and soils of Statewide importance should be protected from conversion to other uses through appropriate planning and zoning, including strengthening the Townships' agricultural areas and applying it to more of the Townships' farmlands.*** Information about various other agricultural preservation programs is contained with Chapter IX of this Plan.



DEVELOPMENT CONSTRAINTS

Another important soils consideration relates to those soils that produce constraints for building development and the operation of on-lot utilities. ***Building development constraints*** can include a wide range of soil characteristics, including steep slopes, wetness, depth to bedrock, frost action, shrink-swell, low strength and cemented pans, and flooding. Within the Region about 135,458 acres have severe building development constraints or about 83 percent of the total land area. Other soil-related constraints become important if ***on-site sewage disposal systems*** are contemplated. Constraints associated with the installation and operation of these systems include steep slopes, wetness, flooding, slow percolation rates, poor filtration characteristics, and high secondary porosity due to the presence of fractures and solution channels. It is important to identify and map those soils that possess building development and on-site sewage disposal constraints so that future land uses can be kept away from these

environmentally sensitive areas. Within the Region about 128,079 acres have severe on-lot sewer constraints or about 78 percent of the total land area. The upland soils of the Region are generally severely restricted for building development and/or on-lot sewers. These steeply-sloped, thin and rocky soils tend to present difficulty for anything but rural use. The soils of the valley tend to have greater constraint on the use of on-lot sewers due to their susceptibility to groundwater contamination via solution channels and sinkholes. ***Future planning should avoid development in areas with severe soil constraints or be accompanied by strict siting standards in local zoning or land development ordinances.***

The following table lists the soil types and their characteristics found within Region:

SOILS TABLE

SOILS CHARACTERISTICS OF THE PENNS VALLEY REGION

Soil Symbol	Soil Name	Slope	Agricultural Rating	Hydric	Severe Soil Limitations			
					On-lot Sewers	Dwellings	Roads	Severe Limitations*
AbB	Albrights silt loam	3-8%	2E		s			wt,sp
AbC	Albrights silt loam	8-15%	3E		s			wt,sp
AcB	Albrights very stony silt loam	0-8%	6S		s			wt,sp
AlB	Allegheny silt loam	2-8%	2E					
AnB	Andover channery loam	0-8%	4W	Y	s	s	s	wt,sp,f
AnC	Andover channery silt loam	8-15%	4W	Y	s	s	s	wt,sp,f
AoB	Andover very stony loam	8-15%	7S	Y	s	s	s	wt,sp,f
AoC	Andover very stony loam	8-15%	7S	Y	s	s	s	wt,sp,f
At	Atkins silt loam		3W	Y	s	s	s	wt, fl,sp,f
Ba	Basher loam		2W		s	s	s	wt, fl
BMF	Berks and Weikert soils	steep	7E		s	s	s	s,d
BkB	Berks shaly silt loam	3-8%	2E		s			d
BkC	Berks shaly silt loam	8-15%	3E		s			d
BkD	Berks shaly silt loam	15-25%	4E		s	s	s	s,d
BlD	Berks very stony silt loam	8-25%	6S		s	s	s	s,d
BrB	Brinkerton silt loam	3-8%	4W	Y	s	s	s	wt,sp,f
BrC	Brinkerton silt loam	8-15%	4W	Y	s	s	s	wt,sp,f
BuB	Buchanan channery loam	3-8%	2E		s			wt,sp
BuC	Buchanan channery loam	8-15%	3E		s			wt,sp
BxB	Buchanan extremely stony loam	0-8%	7S		s	s		wt,sp,ls
BxD	Buchanan extremely stony loam	8-25%	7S		s	s	s	s,wt,sp,ls
Ca	Carlisle muck		7W	Y	S	S	S	Wt, fl, om
Ch	Chagrin soils		1		s	s		fl
CkA	Clarksburg silt loam	0-3%	2W		s			wt,sp
CkB	Clarksburg silt loam	3-8%	2E		s			wt,sp
ClB	Clymer sandy loam	3-8%	2E					
ClC	Clymer sandy loam	8-15%	3E					
CvB	Clymer very stony sandy loam	0-8%	6S					
CvD	Clymer very stony sandy loam	8-25%	6S		s	s	s	s
Du	Dunning silty, clay loam		4W	Y	s	s	s	fl,sp,wt,f
Edb	Edom silt loam	2-8%	2E					
EdC	Edom silt loam	8-15%	3E					
EdD	Edom silt loam	15-25%	4E		S	S	S	sl
ErB	Ernest channery silt loam	3-8%	2E		s			wt,sp
ErC	Ernest channery silt loam	8-15%	2E		S			Wt,sp
EvB	Ernest very stony silt loam	3-8%	6S		S			Wt, sp
EvD	Ernest very stony silt loam	8-25	6S		S	S	S	Wt, sp, sl
HSB	Hazleton extremely stony sandy loam	gently sloping	7S		s	s		ls
HSD	Hazleton extremely stony sandy loam	moderately steep	7S		s	s	s	s,ls
HTF	Hazleton-Dekalb association	very steep	7S		s	s	s	s,ls,d
HaA	Hagerstown silt loam	0-3%	1					
HaB	Hagerstown silt loam	3-8%	2E					
HaC	Hagerstown silt loam	8-15%	3E					
HcB	Hagerstown silty clay loam	3-8%	2E					
HcC	Hagerstown silty clay loam	8-15%	3E					
HcD	Hagerstown silty clay loam	15-25%	4E		s	s	s	s,sh
HhB	Hazleton channery sandy loam	3-8%	2E					
HhC	Hazleton channery sandy loam	8-15%	3E					
HhD	Hazleton channery sandy loam	15-25%	4E		S	S	S	sl
HuA	Hublersburg silt loam	0-3%	1					
HuB	Hublersburg silt loam	3-8%	2E					

SOILS TABLE

SOILS CHARACTERISTICS OF THE PENNS VALLEY REGION

Soil Symbol	Soil Name	Slope	Agricultural Rating	Hydric	Severe Soil Limitations			
					On-lot Sewers	Dwellings	Roads	Severe Limitations*
HuC	Hublersburg silt loam	8-15%	3E					
HuD	Hublersburg silt loam	15-25%	4E		s	s	s	s,sh
LDF	Laidig extremely stony loam	steep	7S		s	s	s	s,ls,sp
LaB	Laidig channery loam	3-8%	2E		s			sp
LaC	Laidig channery loam	8-15%	3E		s			sp
LaD	Laidig channery loam	15-25%	4E		s	s	s	s,sp
LcB	Laidig extremely stony loam	0-8%	7S		s	s		sp,ls
LcD	Laidig extremely stony loam	8-25%	7S		s	s	s	s,sp,ls
LkB	Leck Kill channery silt loam	3-8%	2E					
LkC	Leck Kill channery silt loam	8-15%	3E					
LkD	Leck Kill channery silt loam	15-25%	4E		S	S	S	sl
LlB	Leck Kill very stony silt loam	0-8%	6S					
LlD	Leck Kill very stony silt loam	8-25%	6S		S	S	S	sl
LtB	Leetonia extremely stony loamy sand	0-12%	7S		s	s		ls,d
Lx	Lindside soils		2W		s	s		fl,wt
MkB	Meckesville very stony silt loam	0-8%	6S		s			sp
MkD	Meckesville very stony silt loam	8-25%	6S		S	S	S	Sl, sp
Mm	Melvin silt loam		3W	Y	s	s	s	fl,wt,f
MnB	Millheim silt loam	2-8%	2E					
MnC	Millheim silt loam	8-15%	3E					
MnD	Millheim silt loam	15-25%	4E		s	s	s	s,sh
MoB	Monongahela silt loam	2-8%	2E		s			wt,sp
MrB	Morrison sandy loam	2-8%	2E					
MsD	Morrison very stony sandy loam	8-25%	6S		s	s	s	s
MuA	Murrill channery silt loam	0-3%	1					
MuB	Murrill channery silt loam	3-8%	2E					
MuC	Murrill channery silt loam	8-15%	3E					
MuD	Murrill channery silt loam	15-25%	4E		s	s	s	s,sh
MvB	Murrill very stony silt loam	0-8%	6S					
MvD	Murrill very stony silt loam	8-25%	6S		s	s	s	s,sh
No	Nolin silt loam, local alluvium	0-5%	1			s		f
ORF	Opequon-Hagerstown complex	steep	6E & 7E		s	s	s	s,d,ssp,sh
OhB	Opequon-Hagerstown complex	3-8%	2E & 3E		s	s	s	d,ssp,sh
OhC	Opequon-Hagerstown complex	8-15%	3E & 4E		s	s	s	d,ssp,sh
OhD	Opequon-Hagerstown complex	15-25%	4E & 6E		s	s	s	s,d,l,ssp,sh
OxB	Opequon-Rock Outcrop complex	0-8%	3E		s	s	s	d,ssp,sh
OxD	Opequon-Rock Outcrop complex	8-25%	6E		s	s	s	s,d,ssp,sh
Ph	Philo loam		2W		s	s		fl,wt
Pk	Philo-Atkins very stony soils		2W & 3W	Y	s	s	s (Atkins)	fl,wt,sp,f
Po	Pope soils		2W		s	s		fl
Pu	Purdy silt loam		4W	Y	S	S	S	Wt,sp
RaB	Rayne silt loam	2-10%	2E					
Ru	Rubble Land		7S		s	s	s	s,ls
Ty	Tyler silt loam	3W			S	S	S	Wt,sp,f
URB	Urban Land-Hagerstown complex	gently sloping	2E		*too variable to rate; requires onsite investigation*			
UmB	Ungers channery loam	3-8%	2E					
UmC	Ungers channery loam	8-15%	3E					
UmD	Ungers channery loam	15-25%	4E		s	s	s	s
UnB	Ungers very stony loam	0-8%	6S					
Und	Ungers very stony loam	8-25%	6S		S	S	S	sl
WeC	Weikert shaly silt loam	5-15%	4E		s			d
WeD	Weikert shaly silt loam	15-25%	6E		s	s	s	s,d
WhB	Wharton silt loam	3-8%	2E		s		s	Wt,d, sp, f
WhC	Wharton silt loam	8-15%	3E		s		s	Wt, sp, f
w	Water				s	s	s	

* d – depth to bedrock / f – frost action / fl – flooding / l – low strength / ls – large stones / s – slope / sh – sinkhole hazard / sp – slow permeability / ssp – shrink-swell potential / wt – water table

D. SURFACE WATERS

The way in which water moves through our environment has implications for land use planning. First, rivers, streams, creeks, runs, and their floodplains present hazards to development. Second, land areas adjacent to surface waters offer high quality habitat, conservation and recreational opportunities. Finally, the drainage basin within which surface waters flow is a basic geographic unit used to plan and design sanitary and

storm sewers; systems that can make use of gravity-fed lines can reduce the costs of these types of utilities.

DRAINAGE BASINS

A drainage basin consists of the streams and associated floodplains that dispose of surface water from that area. Drainage basins are separated by ridgelines. As a "Headwaters Region" of the Chesapeake Bay, all of the water draining from the Penns Valley Region eventually flows into the Susquehanna River and then the Chesapeake Bay. In addition all streams within the Region either originate within the Region or within adjoining areas of Centre County. The Region's major and minor drainage basins are identified on the *Natural Features - Hydrology Map*.

The vast majority of the Region is located within the upper **Penns Creek** watershed which flows in a southeasterly direction through the Region. Once in the adjoining Mifflin and Union Counties the creek heads eastward where it eventually joins the Susquehanna River at Selinsgrove. The valleys of the Upper Penns Creek Watershed are separated by mountains and ridges: Nittany Mountain, Brush and Shriner Mountains, Egg Hill, Winkelblech Mountain, and First Mountain, to name a few of the major features. Major streams of the Upper Penns Creek Watershed include Penns, Elk, Pine, Sinking and Muddy Creeks.[7]

However, because of the Region's size and juxtaposition with its high ridges, smaller areas within six other major watersheds are also found here. As the following map depicts, these smaller drainage areas are located along the periphery of the Region and tend to drain away from it.

Cedar Run drains the northwestern corner of Potter Township into **Spring Creek** in the adjoining Nittany Valley Region. Water flows in a northerly direction towards the north side of Bellefonte where the creek has created Pleasant View Gap through the Bald Eagle Mountain on its way to Bald Eagle Creek in Boggs Township. From here water flows to the northeast into the West Branch of the Susquehanna River near Lock Haven.

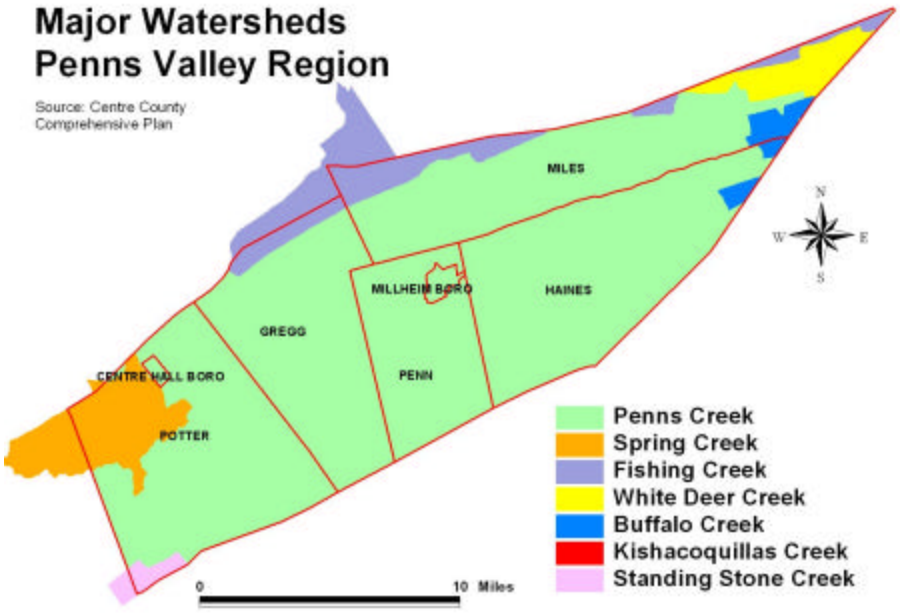
Along the northern border of Gregg and Miles Townships are several discontiguous subwatersheds of Bletz Hollow and Bull Run that flow east straddling the boundary between the Penns and Nittany Valleys before heading north into Walker Township. From here **Little Fishing Creek** flows east into adjoining Clinton County before merging and connecting with Bald Eagle Creek near the town of Mill Hall.

Within northeastern Miles Township are areas that drain into the **West Branch of the Susquehanna River**. Here White Deer Creek flows east and joins the Susquehanna River opposite of Watsontown.

Rapid Run and the Northern Branch of **Buffalo Creek** are located in southern Haines and Miles Townships and flow eastward and converge in Union County where they outfall into the Susquehanna River just north of Lewisburg.

[7] Groundwater and Surface Water Resources of the Upper Penns Creek Watershed. Pg.2

Lingle Stream collects water along the Gregg and Potter Townships southern border and conveys it south into Mifflin County and the Greens Valley Stream. This stream supplies the Laurel Creek Reservoir and Laurel Creek which eventually becomes the Kisha Coquillas creek near Mifflintown.

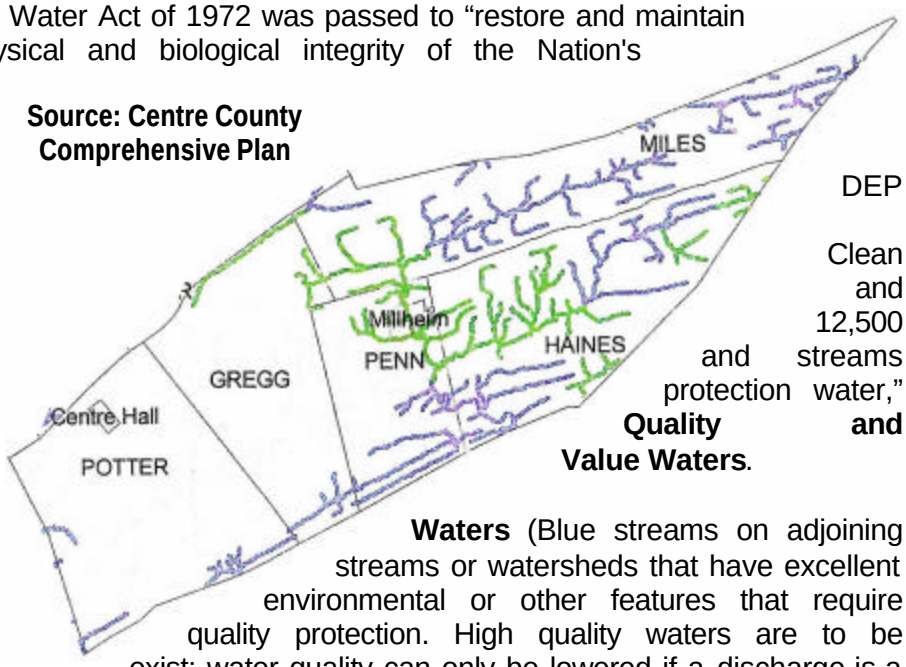


Standing Stone Creek drains southwest Potter Township into adjoining Huntingdon County where it empties into the Juniata River at Huntingdon.

HIGH QUALITY & EXCEPTIONAL VALUE WATERS

The Federal Clean Water Act of 1972 was passed to "restore and maintain the chemical, physical and biological integrity of the Nation's waters."[8] To implement this Federal mandate, the PA DEP passed the Pennsylvania Clean Streams Law and designated some 12,500 miles of rivers and streams as "special protection water," including **High Quality and Exceptional Value Waters**.

Source: Centre County Comprehensive Plan



High Quality Waters (Blue streams on adjoining map) include streams or watersheds that have excellent waters and special water quality protection. High quality waters are to be protected as they exist; water quality can only be lowered if a discharge is a result of necessary social and economic development and all existing uses of the stream are protected.

[8]Pennsylvania Department of Environmental Protection, *Local Protection of High Quality Streams* (Harrisburg, PA: June, 1981), p. 1.

Within the Region, high-quality waters are extensive; their watersheds contain 40,595 acres (almost ¼ of the Region's total land area). Generally these areas are concentrated along the extreme southern border (ridge tops) within Gregg and Potter Townships. However, in the eastern half of the Region, these waters stretch throughout the Region and are replaced only by the even more important exceptional value waters. This predominance of protected waters provides considerable reason for Haines, Miles and Penn Townships and Millheim Borough to take strong steps to protect their quality and use as part of this plan and subsequent implementation strategies.

Exceptional Value Waters (Green streams on preceding map) include streams or watersheds that constitute outstanding national, state, regional, or local resources, such as waters of national, state, or county parks or forests; waters which are used or projected for use as a source of water supply; waters of wildlife refuges of state game lands; waters which have been characterized by the Pennsylvania Fish Commission as wilderness trout streams and other waters of substantial recreational or ecological significance. Exceptional value waters are to be protected at their existing quality because they have outstanding ecological and/or recreational values. The social and economic justification procedures do not apply. Water quality in exceptional value waters simply cannot be degraded."[9]

Penns Creek in Penn Township

Unsurprisingly, the Region contains a wealth of streams and watersheds with characteristics of special protection waters. The exceptional waters are concentrated central within the Region, generally in and around Millheim Borough. However, these watersheds reach out into Haines, Miles and Penn Townships. Specifically Elk and Pine Creeks and their related tributaries share in these valuable qualities. Interestingly, the segments of streams designated as exceptional value include a variety of topographic settings from the mountaintops, down the side slopes and into the lower Brush and Penns Valleys. This is rather unusual as stream segments through low-lying valleys are often degraded by the runoff from adjoining farms and/or man-made developments. However, within the Region these man-made influences have not degraded these valuable stream segments. Exceptional value watersheds total 34,636 acres or about 21% of the Region's total land area.

Strong and proactive measures will be required to protect these particularly threatened waters from the impacts associated with increased development or intensive agricultural use and practices. This designation justifies a vigorous defense of these waters through a variety of local and state initiatives.

Benefits of High Quality Waters

1. Recreational values
2. Fisheries protection
3. Aesthetic/visual
4. Health and welfare

Centre County is home to many high quality streams with some being nationally recognized by anglers as premier wild trout streams. The PA Fish and Boat Commission (PFBC) maintains a list of the state's Class A Wild Trout Streams. These are streams which, "support a population of naturally produced trout of sufficient size and abundance to support a long-term and rewarding sport fishery."[10]

[9] Pennsylvania Department of Environmental Protection, *Local Protection of High Quality Streams* (Harrisburg, PA: June, 1981), pg.3

[10] Pennsylvania Fish and Boat Commission, Pennsylvania Class A Wild Trout Streams, Pennsylvania Fish and Boat Commission Website

The following is an excerpt from the flyfishingconnection.com website that describes fishing along Penns Creek:

"Penns Creek begins a couple of miles north of Spring Mills where it emerges from the mouth of Penns Cave. At its source, it is a small, cool, limestone creek running from 15- to 30-feet wide. This area is heavily posted and very inaccessible for fishing. South of SR 45, from Spring Mills to the town of Coburn (about seven miles), Penns Creek doubles its volume and size from a few cold springs, widening up to 40 feet. Flowing gently through farms and meadows, you'll find a decent number of wild browns here.

"Keep in mind that this area is posted in spots, so it's a good idea to obey the landowners' wishes. By the time mid-June arrives, the absence of a large number of trees, that would provide shade to this area, allows the water to warm up to an unfavorable fishing temperature all the way down to the town of Coburn, where Elk Creek flows in. With the shot of cold water from Elk Creek, Penns Creek resumes its characteristics as a great, wild brown trout stream.

(Source: PFBC's Website)

"The seven-mile area from the confluence of Elk Creek to the catch-and-release area near Poe Paddy Campgrounds is designated as an All Tackle Trophy Trout Project Area. Near Poe Paddy, Swift Run enters and from approximately 650 yards downstream from there 3.9 miles to just about 550 yards below Cherry run, you'll come upon an area designated for Catch-and-Release fishing. Although they don't stock fish in this area, you'll find a good population of browns, some up to 14 inches, with an occasional 16-inch or larger fish. Casting can be challenging in parts of this area, as larger browns feed against the banks outside of casting range.

"Throughout the catch-and-release area, there are prolific hatches, deep pools, and very scenic surroundings. Below the catch-and-release section, trout are stocked, but you may only want to fish as far downstream as Weikert, because below there, cold water sources are lacking and the stream is inaccessible.[11]

Local officials should take active steps to preserve and protect these "sacred" resources from the ills of inappropriate land use and local activities that could threaten their integrity. It is noted that the Region has a "good" start in this effort. As presented earlier the development of the Upper Penns Creek Watershed Assessment by the PVCA details many of the environmental conditions within the Region. While this plan is comprehensive in scope it was not prepared to officially act as an Act 167 Stormwater Management Plan. Local and County officials along with the PVCA should commit to the preparation of this Plan so that specific stormwater management strategies can be developed and implemented via ordinance.

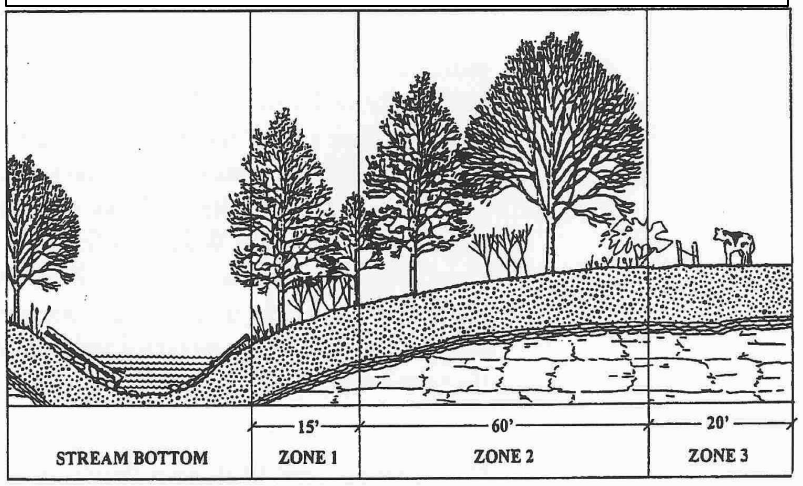
All municipalities should adopt waste handling and waste disposal reporting zoning requirements. Such provisions should require prospective uses to demonstrate compliance with all applicable waste handling and disposal regulations at the local, state and Federal levels as applicable. For large-scale

[11] http://www.flyfishingconnection.com/articles/current/112/Penns+Creek+in+Pennsylvania/, April 2, 2004

industries, concentrated feeding animal operations (CAFOs) and/or other uses that generate large waste volumes or hazardous wastes, the reporting of this information should be tied with the grant of a special exception or a conditional use so that expert testimony can be provided and scrutinized prior to approval of the use. For other less intensive uses the provision of this information should be prerequisite for granting a zoning permit and all subsequent activities should be required to comply with such handling and disposal techniques for continued use and occupancy. Should a use need to change its waste handling and disposal techniques, such changes should be reported to the respective municipality and its respective fire and EMS companies. The provision of this information can also be helpful to local fire companies who may have special procedures to follow for uses with hazardous materials and wastes.

The PA DEP also provides a measure of protection to High Quality and Exceptional Value Waters by regulating the discharge of wastewater, and other point sources of pollution. However, nonpoint source pollution such as agricultural and other types of runoff is only partially regulated. Under Pennsylvania law, the regulation of land uses and activities which generate nonpoint source pollution is largely a municipal function. To avoid degradation of these waters, existing and potential future land uses and activities must be carefully scrutinized.

Cross-Section of Typical Streamside Riparian Buffer



While protection of floodplains and wetlands are widely accepted land use management techniques, recent awareness of diminishing surface water quality suggests the need for more protection. Studies conducted by the U.S. Forest Service demonstrate that riparian buffers offer real advantages in the removal of harmful nutrients and sediment from storm water before it enters the stream. These same riparian buffers can increase the food supply and create interconnected natural systems of movement for local wildlife. Riparian buffers are areas adjoining streams where naturally successive vegetation is provided and protected. ***Each of the Region's municipalities should apply riparian buffer standards to developments that seek to locate within these valuable watersheds.***

It is estimated that 85% of all surface water occurs in smaller streams and creeks. Therefore, the inclination of society to focus upon water quality of larger streams, creeks, rivers, and bays is defective. It is vital that surface water quality of small stream headwaters and low-order tributaries becomes our priority. Without such measures, our higher order creeks and rivers are threatened by poor surface water quality. Surface water quality is a direct function of the interaction between water and the land and

Water Quality Protection Measures

1. Riparian buffers
2. Streambank stabilization
3. Streamside fencing
4. Filter strips
5. Conservation plans
6. Development setbacks
7. Limitations on land uses

vegetation through which it flows. The greatest interaction occurs within lower order streams. Within high order streams and rivers, water is principally contributed from tributaries rather than the adjoining streamside areas; therefore, the opportunity for water quality improvement is minimal. For example, no overhead tree canopy could possibly span the width of the Susquehanna River and reduce its summer water temperature. On the other hand, a well-designed riparian buffer along a low order stream can offer direct water quality benefit to the adjoining property owner and those located downstream. More information about this topic and a sample ordinance are contained with Chapter XI of this Plan.

IMPAIRED STREAMS

"The Department of Environmental Protection (DEP) has an ongoing program to assess the quality of waters in Pennsylvania and identify streams and other bodies of water that do not meet water quality standards as "impaired." Water quality standards are comprised of the uses that waters can support and goals established to protect those uses. Uses include, among other things, aquatic life, recreation, and drinking water, while the goals are numerical or narrative water quality criteria that express the in-stream levels of substances that must be achieved to support the uses. Periodic reports on the quality of waters in the Commonwealth are required under section 305(b) of the federal Clean Water Act.[12] Within the Region no waters have been identified on the PA DEP Section 303d list of impaired streams.

WETLANDS

Wetlands are areas that are regularly inundated or saturated long enough to produce the particular types of vegetation associated with ***swamps, bogs and marshes***. While there are several definitions of wetlands used by regulatory agencies, all definitions require the presence of hydrophytic plants (plants that grow in wet soils), hydric (wet and anaerobic) soils, and the presence of water at or near the surface at some part of the growing season.

Benefits of Wetlands

1. Provide food and habitats for an abundance of animal life.
2. Are breeding, spawning, feeding, cover, and nursery areas for fish.
3. Are important nesting, migrating and wintering areas for waterfowl.
4. Act as natural storage areas during floods and storms.
5. Act as groundwater recharge areas, particularly during droughts.
6. Purify ground and surface waters by filtering and assimilating pollutants.

Recently, much attention has been focused upon the importance of wetlands. All wetlands have value, although their value is highly variable. Wetlands support an abundance and diversity of life unrivaled by most types of environments. The many benefits wetlands provide are summarized in the above inset.

Wetland Protection Measures

1. Modifications to road maintenance practices(e.g., salt and de-icing chemicals).
2. Homeowner and farmer education (e.g., application of yard chemicals).
3. Development setbacks.
4. Limitations on land uses.
5. Filter strips.
6. Environmental Impact Assessment in SLDO.
7. Prevent invasive species plantings.
8. Prohibit outfall of stormwater into wetlands.

Wetlands within the Region have been identified using the U.S. Department of the Interior's National Wetlands Inventory, derived from high altitude aerial photograph interpretation of surfacial features commonly associated with wetlands. This inventory tends to identify the larger wetland areas only. These include a combination of scattered palestrine and riverine

[12] http://www.dep.state.pa.us/dep/deputate/watermgt/wqp/wqstandards/303d-report.htm, March 26, 2003

wetlands. Palestrine wetlands are ponds and small lakes, while riverine wetlands are associated with rivers, streams, runs, creeks, and brooks. Within the Region most of the wetlands occur within or at the edges of its wooded settings; some of these are tied with important natural habitats to be described later in the Chapter. Relatively few wetlands are located in the valleys because of their porous limestone soils and sinkholes that provide for ready percolation into the groundwater. In total about 946 acres are identified wetlands.

The latest Soil Survey completed for the County by the Natural Resources Conservation Service identifies hydric soils which can also indicate the presence of wetland areas. The following hydric soils within the Region have been depicted with severe building and sewer constraints on the Soils & Geology Map contained earlier in this Chapter.

HYDRIC SOILS TABLE

HYDRIC SOILS CHARACTERISTICS OF THE PENNS VALLEY REGION

Soil Symbol	Soil Name	Slope	Agricultural Rating	Hydric	Severe Soil Limitations			
					On-lot Sewers	Dwellings	Roads	Severe Limitations*
AnB	Andover channery loam	0-8%	4W	Y	S	S	S	WT,SP,F
AnC	Andover channery silt loam	8-15%	4W	Y	S	S	S	WT,SP,F
AoB	Andover very stony loam	8-15%	7S	Y	S	S	S	WT,SP,F
AoC	Andover very stony loam	8-15%	7S	Y	S	S	S	WT,SP,F
At	Atkins silt loam		3W	Y	S	S	S	WT, FL,SP,F
BrB	Brinkerton silt loam	3-8%	4W	Y	S	S	S	WT,SP,F
BrC	Brinkerton silt loam	8-15%	4W	Y	S	S	S	WT,SP,F
Ca	Carlisle muck		7W	Y	S	S	S	WT, FL, OM
Du	Dunning silty, clay loam		4W	Y	S	S	S	FL,SP,WT,F
Mm	Melvin silt loam		3W	Y	S	S	S	FL,WT,F
Pk	Philo-Atkins very stony		2W & 3W	Y	S	S	S (Atkins)	FL,WT,SP,F
Pu	Purdy silt loam		4W	Y	S	S	S	WT,SP

* D – depth to bedrock / F – flooding / SP – slow permeability / WT – water table

http://www.pennsvalley.net/fencing5.html

A variety of laws have been passed to protect wetlands. Infill and development in larger wetlands are now regulated by the U.S. Environmental Protection Agency and subject to both State and Federal permitting processes. The issuance of Pennsylvania State Programatic General Permits (PSPGP-2) for the discharge of dredge and fill material into wetlands has been established as a cooperative effort be Federal, state and county agencies that avoids the need for multiple reviews and permit processing. Most projects have permits issued by the PA Department of Environmental Protection or the Centre County Conservation District. Only projects that involve more than 250 lineal feet of streams or are within the 14-County range of the

endangered bog turtle require approval by the US army Corps of Engineers.[13]

In addition several non-regulatory programs are in place that are helping to protect and restore wetlands within the Commonwealth. First the US Fish and Wildlife Service's partners for Fish and Wildlife program focuses upon wetland, grassland, habitat and in-stream restoration, bioengineering, and riparian fencing. This program offers public and private participants $750 per acre for such projects.[14]

Another Wetlands Reserve Program is administered by the USDA Natural Resources and Conservation Service and offers financial and technical assistance to eligible property owners who retire marginal farmlands into restored wetlands. Under this program landowners apply to the USDA for conservation easements and cost-share grants to fund the restoration project. Permanent easements and restoration activities are 100% funded by the USDA. Long term easements (10-30 years) are reimbursed at a rate of 75%. [15]

In Centre County NRCS and the US Fish and Wildlife Service have cooperated on two projects that have restored some 40 acres of wetland; one of these projects is located within the Region. Similarly the PVCA, Ducks Unlimited and the Chesapeake Bay Foundation have planted 1,800 trees in marginal wetlands east of Aaronsburg in Haines Township. This project is aimed at improving stream quality and providing wildlife habitat.[16]

Careful local planning, education, and the incorporation of protective standards into local subdivision and land development ordinances can extend further protection to the Region's smaller wetlands as well as to land areas immediately surrounding wetlands. A requirement for an Environmental Impact Assessment (EIA) prior to any subdivision approval could identify potential adverse impacts as well as opportunities and mitigating measures intended to protect the resource. Such additional protection would further enhance the many benefits wetlands provide to the Region.

Municipal officials should consider the adoption of various measures to protect the Region's wetlands, including modified road maintenance standards, an Environmental Impact Assessment requirement in their respective SLDO, land use and development limitations, and a homeowner educational program.

FLOODPLAINS

A floodplain is an area of land adjoining a water source, such as a river or stream, that is subject periodically to partial or complete inundation by the water source. The floodplain consists of the ***floodway*** and the ***floodway fringe***. The floodway is the stream channel plus an additional area that must be kept free of encroachments to avoid an increase in flood heights. The floodway fringe is the remaining portion of the floodplain within which encroachments must be limited.

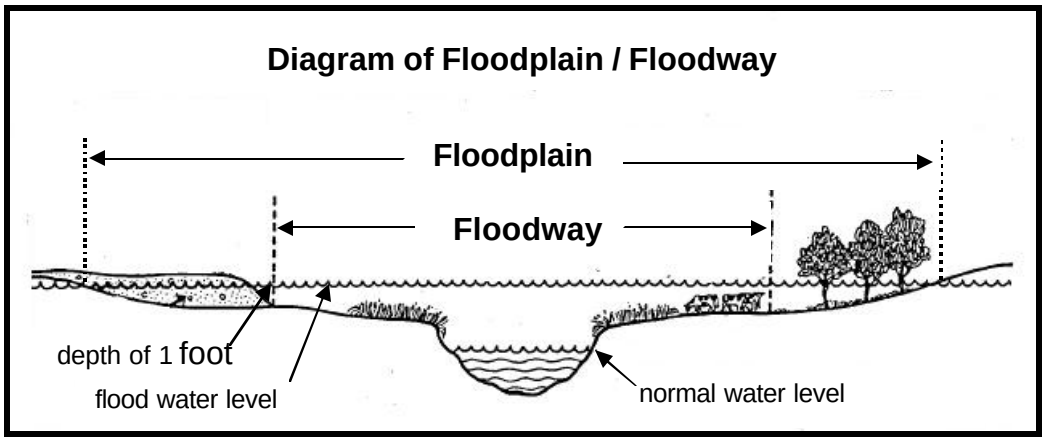
Flooding can result in the loss of life and property, health and safety hazards and significant public expenditures for flood protection and relief. Floodplains also often contain valuable prime farmlands and wildlife habitats. Floodplain protection safeguards the public health, safety and welfare, while protecting natural resource values.

[13] Edward Maltby, Waterlogged Wealth, Institute for Environment and Development, 1986.
[14] Wetlands, Centre County Comprehensive Plan, page 12.
[15] Ibid.
[16] Ibid, pg. 13.

Flood hazard areas within the Region have been identified by the Federal Emergency Management Agency (FEMA). Local governments which regulate development and fill within flood hazard areas qualify to participate in the Federal Flood Insurance Program. Flood hazard areas have been identified for the Region's five municipalities, all of which participate in the Federal Program.

Heavy rain combined with melting snow caused flooding in the Village of Spring Mills in January 1996. Photo: *Centre Daily Times*, January 20, 1996 edition

Federal floodplain mapping denotes estimated 100-year floodplain boundaries, areas within which there is the probability that flooding will occur once in 100 years. These areas are identified on the *Natural Features – Hydrology Map*.



Within the Region much of the developed area in and around the Village of Spring Mills and Millheim Borough is located within the Federally-designated floodplain. Under today's regulations, these settlements would have had to be located elsewhere. However, when these communities were settled many older communities are anchored along important waterways to make use of the ready supply of water for drinking/sewage purposes and the use of its kinetic power. Other outlying floodplains are also found within the Region as depicted on the Natural Features – Hydrology Map. In all about 4,732 acres are identified within these floodplains.

The presence of alluvial soils may also be used to identify additional areas subject to periodic inundation. The latest Soil Survey for the County identifies the following alluvial soil types for the Region and their respective characteristics:

ALLUVIAL SOILS TABLE

ALLUVIAL SOILS CHARACTERISTICS OF THE PENNS VALLEY REGION

Soil Symbol	Soil Name	Slope	Agricultural Rating	Hydric	Severe Soil Limitations			
					On-lot Sewers	Dwellings	Roads	Severe Limitations*
At	Atkins silt loam		3W	Y	S	S	S	WT, FL,SP,F
Ba	Basher loam		2W		S	S	S	WT, FL
BxB	Buchanan extremely stony loam	0-8%	7S		S	S		WT,SP,LS
BxD	Buchanan extremely stony loam	8-25%	7S		S	S	S	S,WT,SP,LS
Ca	Carlisle muck		7W	Y	S	S	S	WT, FL, OM
Ch	Chagrin soils		1		S	S		FL
Du	Dunning silty, clay loam		4W	Y	S	S	S	FL,SP,WT,F
Lx	Lindside soils		2W		S	S		FL,WT

ALLUVIAL SOILS TABLE

ALLUVIAL SOILS CHARACTERISTICS OF THE PENNS VALLEY REGION

Soil Symbol	Soil Name	Slope	Agricultural Rating	Hydric	Severe Soil Limitations			
					On-lot Sewers	Dwellings	Roads	Severe Limitations*
Mm	Melvin silt loam		3W	Y	S	S	S	FL,WT,F
No	Nolin silt loam, local alluvium	0-5%	1			S		FL
Ph	Philo loam		2W		S	S		FL,WT
Po	Pope soils		2W		S	S		FL
Ty	Tyler silt loam	3W			S	S	S	WT,SP,FL
w	Water				S	S	S	

* F-frost action / FL – flooding / LS – large stones / SP – slow permeability / WT – water table

The delineation of alluvial soils generally provides wider floodplains than those identified by FEMA; this is an option for increased protection against flooding for the Region's municipalities. The Region's alluvial soils have been depicted with severe building and/or sewer limitations on the Ag Soils and Building Constraints Map contained earlier in this Chapter. Each of the Region's municipalities have adopted floodplain management regulations as freestanding ordinances or as part of their zoning ordinance; these generally prohibit development and fill within the 100 year floodplain in accordance with FEMA guidelines. These requirements could be expanded to include alluvial soils and provide a higher level of floodplain protection. In addition, some municipalities also include 500-year floodplains that are often also plotted on local FEMA maps. ***Each municipality should consider the use of alluvial soils and the 500-year floodplain to augment their flood hazard boundaries. In addition, floodplains are most often the critical location for riparian buffers that improve water quality and offer habitat highways throughout an area. The Region's municipalities should promote the use of riparian buffers along floodplains; more information and a model ordinance are contained in Chapter X of this Plan.***

Benefits of Floodplain Protection

1. Protection of life, health and safety.
2. Protection of property.
3. Protection against surface water pollution.
4. Protection against soil, crop and wildlife habitat loss.
5. Reduces/eliminates need for public expenditures.

Also review of local ordinances suggest that some updating may be necessary to incorporate changes mandated at the Federal and State levels to remain eligible under the National Flood Insurance program. Local ordinances should be reviewed by local and county agencies and the PA Department of Community & Economic Development (PA DCED) Floodplain Management Division for compliance with current state and federal requirements. Then, any updates should be accomplished accordingly.

STORM WATER MANAGEMENT

One of the most frequently described planning problems is the impact from storm water runoff. As an area develops, the patterns, volume and velocities of storm water runoff are likely to change. Individual developments produce marginal impacts; however, these impacts produce major cumulative problems unless measures are used to protect the capacity of watersheds to discharge surface water in a timely manner and at a safe rate. Storm water runoff can and should be managed. The benefits of storm water management are summarized in the adjacent inset.

Recognizing the need to resolve serious problems associated with flooding the Pennsylvania General Assembly enacted Act 167, the Pennsylvania Stormwater Management Act. This Act changed the way local stormwater management occurred by applying a watershed-based, comprehensive program of regional stormwater management. Act 167 requires all counties within Pennsylvania to prepare and adopt stormwater management plans for each of its watersheds, as designated by the Pennsylvania Department of Environmental Protection (DEP). These plans are to be prepared in consultation with municipalities within the watershed, working through a Watershed Plan Advisory Committee. The plans are to contain stormwater controls to manage stormwater runoff from proposed subdivision and land development applications. Once adopted, local municipalities are required to implement stormwater management ordinances that rely upon selected management techniques within 6 months or risk the loss of future State funding for a variety of projects and activities.

Benefits of Storm Water Management

1. Reduces off-site and downstream flooding.
2. Reduces soil erosion, sediment loading and habitat loss.
3. Protects surface water quality.
4. Improves groundwater recharge.

Aside from the White Deer and Buffalo Creeks watersheds and Potter Township who has participated in and adopted regulations for its area contained within the Spring Creek watershed and Haines Township that is developing its own stormwater ordinance, there has been no stormwater management planning undertaken within the Region. Therefore, these other municipalities should continue to rely upon Centre County for administration of stormwater management ordinances as part of its SLDO. This should continue until such time as more detailed stormwater management strategies can be derived from future local watershed stormwater management plans.

A new practical and low-cost approach to stormwater management is called Low-Impact Development (LID). This is a site-based technique that incorporates small economical environmental features (e.g. rain gardens and grass swales) to intercept, retain, filter and infiltrate or evaporate stormwater with no adverse impact to the quantity and quality of pre-development runoff. These techniques are ideally suited to conservation design subdivisions that will occur within the Region. ***Local stormwater plans should consider this new option as an alternative to costly urban improvements.***

E. IMPORTANT PLANT AND WILDLIFE HABITATS

As an area is converted from its natural to a man-made state, the delicate balance of the local ecosystem is often disrupted. This imbalance degrades or strains the environment's ability to support varied forms of plant and animal species. Consequently, species become ***threatened*** or ***endangered***.

State and Federal agencies have become increasingly concerned over the protection of local natural habitats as a means of protecting wildlife diversity. The protection of these habitats can also provide other benefits, as summarized in the adjacent inset. For these reasons, all levels of government and other conservation-oriented groups have become involved in the protection of these habitats.

Benefits of Habitat Protection

1. Protection of plant and wildlife diversity.
2. Protection of threatened and endangered species.
3. Protection of woodlands and linear corridors.
4. Provision of passive recreation opportunities.

NATURAL AREAS & HABITATS

Information for this section was obtained from the Centre County Natural Heritage Inventory. The Centre County Natural Heritage Inventory is a project of the Western Pennsylvania Conservancy (WPC), Clear Water Conservancy and the Centre County Planning Office. Through its partnership in the Pennsylvania Natural Diversity Inventory, the Western Pennsylvania Conservancy uses some 800 sources of information to map, describe and disseminate facts about important natural features.

The inventory includes animals, plants, habitats, and natural communities that are unique biological resources within the county. The end results provide a list of the most important biological sites, identify their living resources, and provide a map of their locations. Recommendations are included with the inventory on the management of the living resources present. The inventory produces a written report that contains maps of the locations of Natural Heritage Areas and a summary of the areas prioritized by significance in the following categories:[17]

- Exceptional – sites meriting quick, strong and complete protection;
- High significance - sites meriting strong protection in the future;
- Notable – sites meriting protection according to their quality and degree of disturbance; and,
- County Significant – sites worthy of further investigation.

It is the policy of the PNDI not to release detailed site-specific information about significant natural features for general exposure to the public. This protects the feature from persons who become curious and attempt to locate and collect such features. Instead, PNDI provides generalized locations of known or historic natural features occurrences.

Trout Lilly

Using PNDI's criteria, it is unsurprising that the Region contains many important habitats. The following tabulates information about these sites which are keyed to their depiction on the Natural Features - NHI Map.

Important Natural Areas Within the Region

#	Site Name	Municipality	Description/Notes
Sites of Exceptional Significance			
12	Blue Rock BDA	Haines/Penn	Habitat for PA-rare limestone cliff opening / cliff communities and backwards sedge, a PA plant of special concern.
15	Brush Mountain Vernal Pools 1	Haines/Miles	Habitat for NE bulrush, a nationally endangered plant species
16	Brush Mountain Vernal Pools 2	Haines/Miles	Habitat for NE bulrush, a nationally endangered plant species
32	Hosterman's Pit	Haines	Surface outlet to an aquifer that is habitat for a globally rare species.
33	Hough Mt. Vernal Pools BDA	Miles	Habitat for NE bulrush, a nationally endangered plant species
48	Penns Creek Hardwoods BDA	Haines	Habitat for several special concern animals and a unique forest community.
62	Rupp Hollow Vernal Pools	Haines	Habitat for NE bulrush, a nationally endangered plant species
67	Sharer Cave	Potter	Habitat for globally rare animal species.
70	Sinking Creek Prairie BDA	Gregg/Potter	A side-oats gramma grassland community with several PA plants of special concern.
83	Stover's Cave	Haines	Habitat for globally rare animal species.
96	Woodward Cave	Haines	Habitat for globally rare animal species.

[17] http://www.clearwaterconservancy.org/WSCWCNatHeritageInven.htm

Important Natural Areas Within the Region			
#	Site Name	Municipality	Description/Notes
Sites of High Significance			
18	Cherry Run BDA	Haines	Exceptional Value Watershed
41	Millheim Narrows BDA	Miles	Habitat for backwards sedge & white water crowfoot, PA plants of special concern
37	Kettle Run Farm	Penn	Habitat for wild lupine, a PA rare plant.
43	N. Branch Buffalo Creek BDA	Haines	Exceptional Value Watershed
52	Pine Creek/Fiedler Rd. BDA	Haines	Habitat for backwards sedge, a PA plant of special concern.
Sites of Notable Significance			
14	Breon Road Wetland BDA	Miles	Vernal pool communities.
23	Galbraith Gap Run Headwaters Seep BDA	Potter	Very extensive undisturbed mountain seepage wetland.
27	Green Gap BDA	Miles	A good example of a forest-type community.
29	Haines Gap BDA	Haines	A diverse gap forest and habitat of northern long-eared bat, a PA animal of special concern.
47	Penns Creek Conservation Area LCA	Haines/Penn	Most natural landscape along Penns Creek; habitat for several rare animal species.
49	Pine Creek Meadow BDA	Haines	A shrub wetland community and very extensive intact seepage-fed hemlock palustrine forest.
57	Roaring Run BDA	Gregg/Miles	Exceptional Value Watershed
82	Stover Gap BDA	Haines	A diverse and possible old-growth gap forest.
88	Veiled Lady Cave BDA	Gregg	Habitat of northern long-eared bat, a PA animal of special concern.
94	White Deer Creek Seeps BDA	Miles	A good example of forest seepage communities.
95	Wildflower Hill BDA	Gregg/Potter	A good example of a limestone forest.
Sites of County Significance			
5	Bear Run Natural Area	Haines	Good example of a hemlock-tuliptree-birch forest community
25	Georges Valley Wetlands LCA	Potter	Exceptional concentration of wetlands
NA	Hook Natural Area BDA	Haines	Exceptional Value Watershed
51	Pine Swamp BDA	Penn	Extensive coniferous wetland recovering from past disturbance.
53	Poe Valley State Park Ravine	Penn	Good example of a hemlock- northern hardwoods forest community
55	Potter Run Tributary Wetland	Potter	A wetland
56	Potter Run Wetland	Potter	A wetland
71	Sinking Creek Wetland #2 BDA	Potter	Floodplain forest in a riparian zone of Sinking Creek
72	Sinking Creek Wetland #2 BDA	Potter	Floodplain forest in a riparian zone of Sinking Creek
73	Sinking Creek Wetland #2 BDA	Potter	Floodplain forest in a riparian zone of Sinking Creek

While it is policy not to release detailed information about these settings so that would-be collectors are not provided information that would allow them to readily impact these sensitive features. The County's Natural Heritage Inventory details the threats and stresses to each site and continues with specific recommendations to manage and protect them.

Many of these important natural areas are contained within other inventoried natural features that have combined to produce the pristine areas of the Region. Consequently these areas will be located outside of future urban development growth areas. Furthermore, techniques used to manage these other resources should assist in the protection of these habitats. However, rare and endangered plant and animal species must be preserved

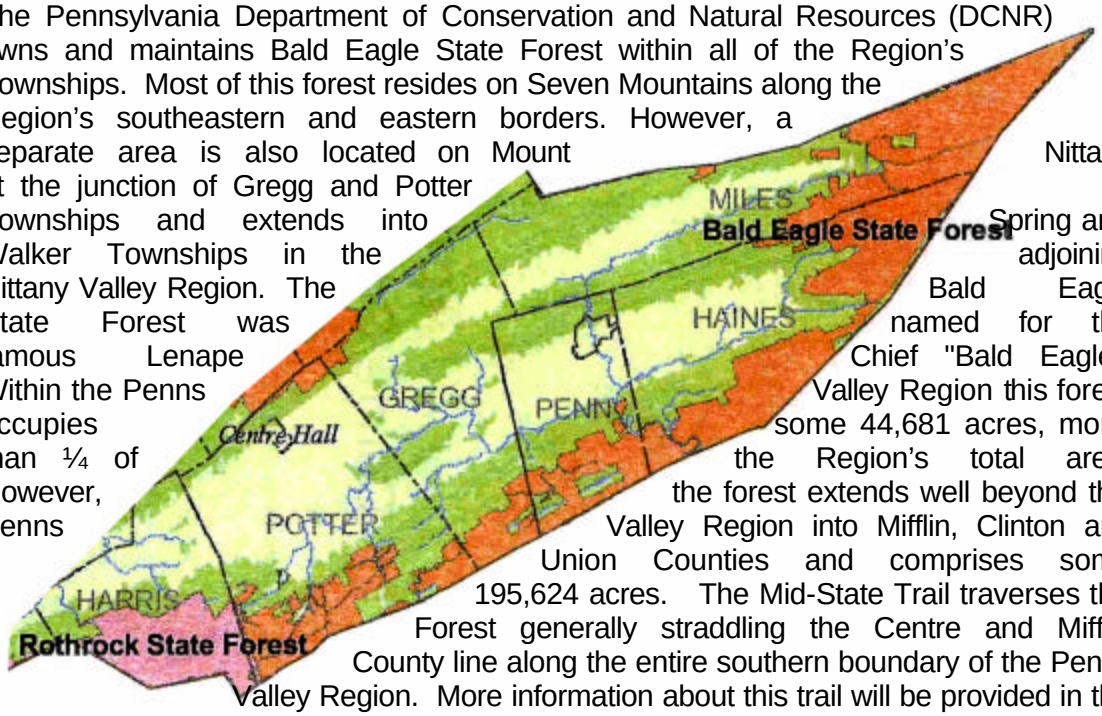
Natural Areas Protection Measures

1. Development and vegetation removal setbacks.
2. Modifications to road maintenance (e.g., snow and ice removal; salt and de-icing chemicals).
3. Limitations on land use.
4. Homeowner education (e.g., application of yard chemicals/removing plants).
5. Environmental Impact Assessments.

and protected from indiscriminate impact even in rural settings by using development review procedures intended to conserve habitats in which these species occur. ***A requirement for an Environmental Impact Assessment prior to any subdivision/land development approval should be applied to areas within these natural areas. These EIAs can be applied universally within rural areas or imposed as a special overlay zone within the designated areas. Required EIAs should require the identification of potential adverse impacts as well as opportunities and mitigating measures that could protect these areas amid development. EIAs should be prepared by qualified professional experts and reviewed by locally-appointed/retainered experts, prior to development approval. Applicants should be required to demonstrate compliance with the site-specific recommendations for each site as listed in the County's Natural Heritage Inventory.***

PENNSYLVANIA STATE FORESTS

The Pennsylvania Department of Conservation and Natural Resources (DCNR) owns and maintains Bald Eagle State Forest within all of the Region's Townships. Most of this forest resides on Seven Mountains along the Region's southeastern and eastern borders. However, a separate area is also located on Mount Nittany at the junction of Gregg and Potter Townships and extends into Spring and Walker Townships in the adjoining Nittany Valley Region. The Bald Eagle State Forest was named for the famous Lenape Chief "Bald Eagle." Within the Penns Valley Region this forest occupies some 44,681 acres, more than ¼ of the Region's total area. However, the forest extends well beyond the Penns Valley Region into Mifflin, Clinton and Union Counties and comprises some 195,624 acres. The Mid-State Trail traverses the Forest generally straddling the Centre and Mifflin County line along the entire southern boundary of the Penns Valley Region. More information about this trail will be provided in the Public Facilities Chapter of this Plan.



"The Bald Eagle State Forest hosts all the major game species including deer, bear, wild turkey and other small game. There are thirteen streams within the Bald Eagle District totaling 47 miles that are stocked and fishable. Particularly noteworthy are Penns Creek and Fishing Creek. Along the Mifflin County section of Penns Creek the Pennsylvania Fish Commission has established a "catch and release" stretch of stream where year-round trout fishing is permitted. Near Fishing Creek and the village of Lamar in Clinton County the Federal Fish and Wildlife Service maintains a fish hatchery for stocking the surrounding area. Driving and walking for pleasure is a major outdoor recreational use of the forest.

"The District has 340 miles of drivable roads and about the same number of miles of trails. There are five designated scenic drives. The Mid-State Trail traverses the District

running northeast from the Route 322 roadside rest at the Centre-Mifflin county line, through R. B. Winter State Park to the village of McElhattan, southeast of Lock Haven in Clinton County. There are 27 vistas within the Bald Eagle State Forest. They offer the forest user many and varied views of both the State owned and private land within and surrounding the District."[18]

"Over one-third of the Bald Eagle State Forest is in public watershed, making the proper management of this land very essential."[19]

Rothrock State Forest comprises about 94,287 acres among seven separate areas within Centre, Huntingdon and Mifflin Counties. Within the Penns Valley Region, this forest is located on the west side of US Route 322 in southwest Potter Township amid the largest contiguous area of the forest with about 80,000 acres. Rothrock State Forest is named for Dr. Joseph Trimble Rothrock who is regarded as the "Father of Forestry" in Pennsylvania for his accomplishments as the first commissioner to lead the Division of Forestry in the State's Department of Agriculture.

PENNSYLVANIA STATE GAMELANDS

The Pennsylvania State Game Commission owns and operates a portion of one gameland within the Region. State Gameland No. 295 contains 2120 acres and is located in the northwest corner of Miles Township and extends into adjoining Walker Township. These areas offer settings for public hunting of small and large game during designated hunting seasons as well as year-round hiking and nature enjoyment.

WOODLANDS

Woodlands comprise approximately 2/3 of the area within the Penns Valley Region and are largely concentrated in the upland ridges of Nittany, Brush and Seven Mountains. The side slopes tend to have more fragmentation amid pockets of farming and rural housing on large lots. It is no accident that the Region has high quality surface and groundwaters as forests play a major role in the protection of these waters. It is also no surprise that many of the Region's significant natural habitats also correspond to wooded areas as they offer wildlife cover and food supplies.

Recent amendments to the Pennsylvania Municipalities Planning Code (MPC) specifically enable local governments to protect significant woodland areas by preventing extensive development in those areas and/or engaging development review procedures that conserve these important natural features. However, the MPC also requires every municipality to permit forestry uses by right in every zone within the Commonwealth.

Therefore each municipality must make these required changes within their respective Zoning Ordinance, even the Boroughs as absurd as it may sound. Furthermore it is vital that each municipality develop and adopt sound forestry management regulations that can protect the sensitivity of wooded areas and adjoining neighbors from the deleterious impacts of uncontrolled logging uses and operations. More on this subject and a model ordinance can be found in Chapter XI of this Plan.

[18] http://www.dcnr.state.pa.us/forestry/stateforests/forests/baldeagle/baldeagleactivities.htm

[19] http://areas.wildernet.com/pages/area.cfm?areaID=PASFBE&CU_ID=1

Next, the concentrations of woodland deserve protection particularly in light of the Region's desire to protect its ground and surface waters. Reforestation and tree preservation requirements can require that a majority of existing trees in proposed subdivisions or land developments be maintained or replaced, except those whose removal is necessary for the proposed structures and required improvements.

The Region's municipalities, should consider the adoption of other protective measures for woodlands, such as limiting the removal of trees adjacent to streams, in steep sloped areas, and in or adjacent to identified Natural Areas. In addition, developers as well as woodlot managers should be encouraged to maintain established wildlife corridors in the form of linkages to other wooded areas. ***Municipal officials should consider the adoption of standards limiting the removal of trees in sensitive areas, and encouraging the preservation of wildlife corridors.***

Benefits of Woodlands Protection

1. Slows erosion by stabilizing steep slopes and stream banks through extensive root systems.
2. Aids in storm water management and replenishment of aquifers by promoting groundwater recharge.
3. Aids in purifying groundwater by filtering runoff and reducing sediment wash caused by erosion.
4. Provides important wildlife habitat areas, particularly when large, unbroken areas of forest cover or linkages to other blocks of woodland can be maintained.
5. Offers excellent passive recreation opportunities, such as hiking, horseback riding, photography, hunting, and camping.
6. Helps reduce the level of air pollution by absorbing airborne pollutants and producing beneficial carbon dioxide.
7. Moderates climatic conditions by providing wind-breaks and shade from direct sunlight.

Woodland Protection Measures

1. Tree removal setbacks adjacent to streams.
2. Tree removal limitations in steep-sloped areas and in and near Natural Areas.
3. Maintenance of wildlife corridors.

Invasive species are a growing problem in Eastern forests. Insects, fungi, and disease introduced from Europe and Asia have damaged millions of acres of forested land. Insect defoliators remained prevalent in mid-and south central counties of the Commonwealth. These species include gypsy moth, orange striped oakworm, and variable oak leaf caterpillar (more noticeable in north-central Pennsylvania). Gypsy moth defoliation was reported on 237,764 acres in 2001, representing a 71 % decline in damage as compared to the previous year.[20]

The hemlock woolly adelgid is becoming an increasing problem in the forests and residential stands of hemlocks. The adelgid is a sap- feeding insect that attacks hemlock trees throughout eastern North America. This insect feeds throughout the year, although spring is when they do the most tree damage. Introduced probably from Japan, and appearing in Pennsylvania in the mid-60's the hemlock woolly adelgid has become a significant threat to Pennsylvania's state tree.[21]

Local and County officials should keep abreast of Federal and State initiatives to manage these threats to the abundant and valuable forests of the Region.

[20] Pennsylvania – 2002, Forest Health Highlights, Pennsylvania Department of Conservation and Natural Resources Bureau of Forestry & USDA Forest Service, Northeastern Area Stae and Private Forestry, 2002.
[21] DCNR-s Bureau OF Forestry, Hemlock Woolly Adelgid Site, DCNR Website, 2003.

LUMBER HERITAGE REGION OF PA

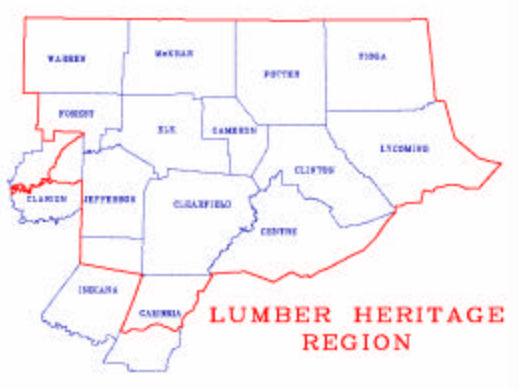
The following are excerpts from the Lumber Heritage Region of Pennsylvania's Management Action Plan / Executive Summary, May 2001 contained on a CD-ROM.

The Lumber Heritage Region of Pennsylvania consists of a 15-county area in north central and northwest Pennsylvania including all or portions of Cambria, Cameron, Centre, Clarion, Clearfield, Clinton, Elk, Forest, Indiana, Jefferson, Lycoming, McKean, Potter, Tioga and Warren Counties. This area encompasses the Allegheny National Forest, 10 State Forests, 34 State Parks, 69 State Game Lands, the entire Eastern Elk range within Pennsylvania and numerous recreational, historic, cultural, and natural resources.

The LHR began with one small seed: an idea to connect the existing lumber related efforts within this region. The struggle and survival of these forests and the people of the region must be told out loud; this is the intent of the Lumber Heritage Region.

The overarching goal of the LHR involves defining and implementing a strategy that links grassroots projects related to lumber history. The LHR plans, through various implementation projects, to:

- Build partnerships with the contemporary forest products industry and other regional organizations.
- Focus on small-scale economic development.
- Work to preserve the culture based on the region's lumber history.
- Promote and preserve the recreational activities and open space available within the region.
- Unify and enhance education and interpretation projects related to lumber history.



In order to accomplish these goals, the organization and management of the region were investigated. Along with its rich resource base, the LHR's organization and management structure strengthen its ability to become a vibrant and successful Heritage Park. The LHR developed implementation strategies for each of these goals. This was accomplished by creating advisory committees for each topic. These committees were responsible for developing the strategies and projects related to each of the five PHPP goals mentioned.

As the lumber industry moved westward, it left behind many problems associated with the deforestation that occurred in Pennsylvania over the previous century. The once lush forest landscape had been transformed into a carpet of wasteland and was fighting serious wildfires and soil loss. Only the more remote and difficult to access forest lands remained uncut. As the lumber industry, public officials, and private citizens recognized concern over this loss, a new era of forest conservation began. President Benjamin Harrison was in office when the Forest Reserves, later renamed National Forests, were created. This program prevented development, but provided no management of the land. During Theodore Roosevelt's term in office provisions were made to actively conserve and manage resources on the Forest Reserves.

Joseph T. Rothrock and Gifford Pinchot were also very important men of this era. Joseph Rothrock, Pennsylvania's Father of Forestry, was one of two men assigned to inspect the forests and provide a report to the governor to aid in the establishment of the Division of Forestry in the Department of Agriculture. He then became the state's first Forest Commissioner and helped establish the Pennsylvania Forest Reserves, which subsequently allowed the state to purchase land to create state forests. The land purchased was usually bought from the lumber barons of the previous era, who had moved their operations to the west and left behind a wasteland in which no one but the state was interested.

Gifford Pinchot, known as America's Father of Forestry and a two-term Pennsylvania Governor, helped foster the beginnings of the US Forest Service. It was Pinchot's philosophy that trees were a crop that could be managed and reestablished after harvesting.

It was during this era that the Civilian Conservation Corps had one of the largest roles in rebuilding and repairing the state's forests during the Depression. When Franklin Roosevelt created the CCC, it was one of the largest programs instituted in terms of manpower. The intent was to employ strong young men to rebuild the nation's forests, perform flood control, and work on beautification projects. However, the CCC far surpassed its defined mission, with groups of men fighting forest fires, planting trees, building roads and fire towers, and creating state parks including many of the buildings, picnic areas, swimming areas, campgrounds, trails, dams, and bridges that are still standing in the state parks today. From its inception in 1933 to its dissolution in 1942, the contributions of the CCC to forest conservation and the history of LHR remain highly visible.

From the beginning of this era where the forests were stripped of trees to the end of this era where a substantial forest recovery and an economic upswing were in progress, this era is a story of hardships and successes. The indelible marks left on Pennsylvania's landscape by the conservationists and CCC workers of the times have changed the attitudes toward - and of - the lumber industry forever. As lumber is still a high demand product on an international scale, the focus has changed from clear cutting forests to sustainable forestry.

As the forests recovered during the previous era, the forest composition changed. Unlike the former forests of white pine and hemlock, the successional forests boasted hardwoods, especially valuable black cherry. This new diverse forest composition generated an interest by what eventually became the Pennsylvania Bureau of Forestry. As foresters created sophisticated operations and increased the precision of natural resource management, timber production became a high technology descendant of the past two centuries.

As supply and demand for forest products waxed and waned throughout the latter part of the twentieth century, a wave of environmental awareness fed a growing public concern

over forest health. Multiple-use management created a new lens though which forest management would be focused, creating more even consideration for recreation, timber, water, rangeland, and wildlife as forest uses. As the twenty-first century begins, sustainable forest management practices have grown in popularity and, in some cases, are mandated. This approach allows for multiple stages of forest growth, which in turn creates greater overall forest health, allows many uses of the forest resources of the LHR, and ensures that its most valuable natural resources will renew itself for future generations.

Even with Pennsylvania ranking first in the country for hardwood growing volume and forest products, the forests of Pennsylvania are still growing at two times the rate at which they are being harvested. This is due to the dedication by the lumber industry to proper care and management of our valuable timber resources. As a result, Pennsylvania has over 2.5 million acres of forests that have been certified as "well managed" under the standards set by the International Forests Stewardship Council. The state forest system accounts for 2.2 million of these acres, making it the largest certified forest in North America.

Today the buzz of the saw and felling of a tree do not signify a loss as they did a century ago. Sustainable forestry practices within the LHR, encouraged and adopted by the forest products industry, will set the stage for future forestry practices not only in Pennsylvania, but across the nation. This will be the LHR's lasting contribution to its most precious resource.

Local officials from the Region should support the efforts of the LHR through the application of suitable regulations that ensure proper management of forestry practices, permit related forestry businesses and other enterprises, preserve the inherent cultural and recreational features of the area and commit to a long term program of sustainable forestry and an integral component of the Region's economy and quality of life.

CAVES

According to the publication entitled *Caves of Centre County, PA* (Feb. 1979) by the Mid-Appalachian Region of the National Speleological Society, the Region has some 43 caves; almost twice that contained in other areas of Centre County. Each cave is listed below and depicted on the Natural Features – NHI Map:

Caves of the Penns Valley Region				
Municipality	**Cave Name**	**Length (ft.)**	**Entry Status***	**Difficulty**
Penn	Alters	200	CO	F
Potter	Burckerhoff	290	P	W
Gregg	Coonscat	250	O	H
Potter	Copenhaver	300	CN	H
Gregg	Cow	20	O?	H
Potter	Decker	70	O?	F (R)
Gregg	Deerbone	350	O	L
Gregg	Earl Whites	200	O	H
Potter	Egg Hill	140	O	H
Miles	Elk Creek	260	CO	F
Millheim	Footbridge	50	O	H
Gregg	Fox	60	O	H
Gregg	Hennigh	700	O	F(L)
Potter	Hol-Bruck	280	P	F(L)

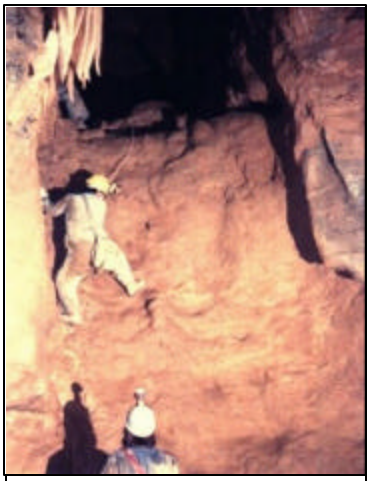
Caves of the Penns Valley Region				
Municipality	**Cave Name**	**Length (ft.)**	**Entry Status***	**Difficulty**
Potter	Holter Pit	100	P	L (V)
Haines	Hostermans Pit	6630	CO	V
Haines	Hostermans Fissure	30	O	H
Miles	Madisonburg	200	O	F
Millheim	Millheim	250	CO	G
Penn	Millheim South	130	O	W
Gregg	Penn's	1700	C	W
Gregg	Penn's Shelter	40	O	H
Penn	Pine Creek	30	O	H
Penn	Pine Creek Spring House	25	O	W
Miles	Poterfield Fissure	90	P	H
Miles	Rebersburg	80	R	H
Miles	Roadside	40	O	H
Penn	Rossman	235	CO	F
Potter	Sharer	2000	P	F
Gregg	Sinking Creek	100	O	H
Miles	Smulton Sinks 1 & 2	270	P	W
Gregg	Spring Mills	135	O?	H
Haines	Stover	200	R	H
Gregg	Suicide	40	?	H
Gregg	Tiny	15	P	F
Gregg	Tunigs	20	P	H
Miles	Van Horns	250	CO	H
Gregg	Veiled Lady	1030	R	H
Penn	Weaver Springs	25	O	W
Haines	Woodward	2000	C	H
Haines	Woodward 2	260	O	H
Haines	Woodward Breakdown	100	&	H

Entry Status Key:
O – Open;
CN – Closed by natural causes;
CO – Closed by owner;
R – Restricted, no caving;
P – Entry with special permission only;
G – Gated entry by contacting Nittany Grotto;
C – Commercial.

Difficulty Key:
V – Vertical equipment required;
L – Cable ladder;
R – Rope;
F – Free Climbable;
W – Water cave;
H – Horizontal;
Q – In quarry.

*This description refers to the physical status of the opening and not its access to the public.

Most of the caves within the Region and the County are found in the Nealmont limestone geologic formation within about 600 feet of the surface. Caves within the Region are most often found where outcrops of limestone meet the foothills of adjoining mountains and at discharge points along the incised stream valleys.[22] The Region has several caves that are extra long and large. These features have become natural and commercial tourist attractions that compel recognition within any future land use plan.


Hostermans Pit Cave

The longest cave in Centre County is **Hostermans Pit** with 6630 lineal feet of underground passages. This cave was originally discovered in 1959 by a local farmer who was removing a pile of rocks. Since then the Nittany

[22] The Caves of Centre County, PA, Mid-Appalachian Region, National Speleological Society, Feb., 1979, pg. 10.

Grotto has conducted numerous surveys of the cave to verify its various connecting passages. The entrance to this cave is closed by a cement plug with a steel door. Under agreement with the former owner (Bethlehem Steel Corporation) access is restricted to qualified and experienced persons who must be accompanied by a member of the Nittany Grotto who is familiar with the cave.[23] A loop configuration of passages begins and ends in the Clay Bank Room; the adjoining photograph portrays the "Clay Bank" section of the cave as found on the following website: www.kcnet.org/-dseashol/caving.htm. This cave also provides habitat for a globally rare animal species.

The **Penns Cave** is a commercial cave located at the western tip of Brush Mountain popularly known as the Water Cave. This cave yields a large stream that forms the headwaters of Penns Creek. The cave has two natural entrances and another man-made opening. The adjoining picture depicts the water entrance to the cave which opens from the bottom of a large sinkhole (www.thecareys.net/html/ PennsCave.htm). From here visitors are taken through the cave. The water level in the cave is controlled by a small dam located on Penns Creek about ¼ mile downstream of the man-made opening to the cave.[24] Today this locale contains several tourist facilities (eg. wildlife animal farm, airport and lodging).

Boat dock in Penns Cave

Woodward Cave is another commercially operated cave popularly known as the Large Cave and is located about 2 miles west of Woodward. The entrance to this cave is located on the eastern tip of a small ridge into which Pine Creek flowed prior to its commercial opening. However, periodic flooding washed materials into the cave so the creek was diverted to facilitate improved walkways and the installation of electricity. This cave also provides habitat for a globally rare animal species.

"Tower of Babel," the largest speleothem in Woodward Cave

The Pennsylvania Cave Protection Act was signed into law on November 21, 1990. It provides protection to caves, their mineral deposits and wildlife inhabitants from prescribed acts of destruction, defacing, unlawful entry, dumping, burning and disposal of wastes. ***The Region should educate the public about this Act and seek to incorporate these unique features within their resource and open space protection policies.***

F. UNIQUE GEOLOGICAL FORMATIONS

As described in previous sections of this chapter, the geology of an area is largely responsible for its landform. Unique geologic formations and occurrences can produce scenic vistas and places of special interest, recreation, and scientific and educational value that deserve special consideration and protection. Following literary research regarding these special sites it was determined that there are several unique geologic features that, in some ways, make the Region a truly spectacular natural area. The following describes these sites, as depicted on the Natural Feature Map.

[23] Ibid, pgs. 44-48.
[24] Ibid, pgs. 64-69.

Nittany Mountain Overlook – the feature is described as a magnificent view of Penns Valley and the Seven Mountains area to the south. This overlook is located along the south side of PA Route 144 on the south side of the crest of Nittany Mountain about 1.2 miles northwest of Centre Hall Borough.[25] At an elevation of about 1800 feet this overlook offers a spectacular panoramic vantage of the Penns Valley as much as 600 feet below. A panoramic photograph of western Penns Valley area taken from this overlook can be found on page 13 of this Chapter.

Penns View – Along Poe Paddy Drive south of Coburn and within Bald Eagle State Forest, this is recognized as one of the finest scenic overlooks in the United States. Here the Penns Creek has cut a deep and twisting channel through a series of high ridges. Outcrops of red conglomerate of the Bald Eagle geologic formation are exposed on the rim of this overlook. This overlook sets an elevation of about 1600 feet about 500 above the valley below. Other scenic overlooks are found nearby along Poe Paddy Drive including Ingleby and Ravens Knob.[26]

Rising Spring – This spring is described as the 11th largest of second-magnitude springs within Pennsylvania. It is located along Penns Creek within the Village of Spring Mills. The spring rises from fractures in the Nealmont limestone geologic formation with a median flow of 6000 gallons per minute.[27]

Penns Cave Spring – This spring supplies the source of Penns Creek and is located within the commercial Penns Cave. The spring rises from the aquifer in the Nealmont limestone geologic formation with a median flow of 6000 gallons per minute. More information about the cave is found on the preceding page 43 of this Chapter.[28]

These unique geological features provide rare and unusual natural settings that make this a highly scenic and environmentally interesting place. Regional officials should be constantly aware of these natural assets and protect them accordingly.

G. NOTABLE TREES OF CENTRE COUNTY

"The seed of an idea was planted on July 25,1987. On that day, the Centre County Historical Society honored a white oak that had stood for at least 275 years near the comer of Berkshire Drive and Farmstead Lane, in Ferguson Township. The tree, known as the Farmstead tree, was honored as a "living witness" at the time of the signing of the U.S. Constitution, and in a ceremony marking the tree's historical significance, a commemorative plaque was awarded to the owner, J. Alvin Hawbaker.

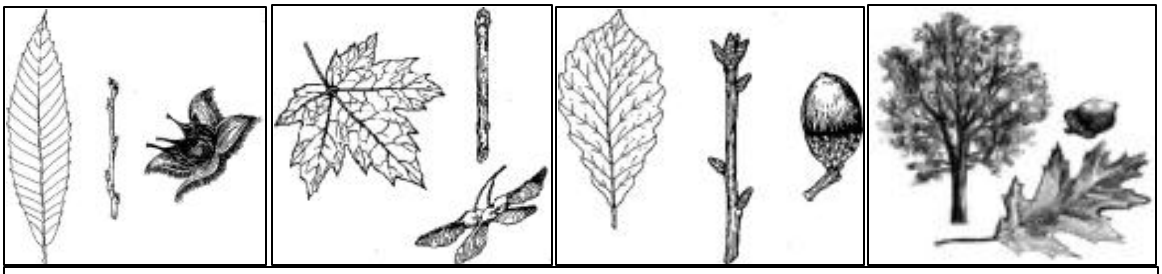
"At the Society's monthly meeting two days later, Jacqueline Melander, president of the society, encouraged the Board of Governors to approve a continual program of recognition of the county's most notable trees. The county roster would be similar to the state registry that began in 1886 when Pennsylvanians reported "tree monarchs" to the Pennsylvania Forestry Association. On July 27, 1987, the Board approved the formation of a Committee for the Recognition of Notable Trees.

[25] Outstanding Geologic Features of Pennsylvania, PA DER, Bureau of Topgraphic & Geologic Survey, 1979, pg 294
[26] Ibid, pgs. 295-297
[27] Ibid, pgs. 310-311
[28] Outstanding Geologic Features of Pennsylvania, PA DER, Bureau of Topgraphic & Geologic Survey, 1987, pg 142

Using a 10 point system the Committee nominated trees based upon circumference, height and crown spread. But size was not the only consideration. Tree history and description were also evaluated. As the list of notable trees grew, the Society decided to publish its inventory in 1990. Nominations continue today as the trees and list grows.[29] The following lists those "notable trees" contained within the Penns Valley Region as depicted on the Natural Features - NHI Map.

Notable Trees of the Penns Valley Region

Species	Location	Date	Circumference	Height	Spread
American Chestnut	Poe Mountain Church Road	8/91	2'11"	51'	22'
Norway Maple	Rimmey Road, Centre Hall	10/90	14'4"	67'	63'
Chestnut Oak	Rimmey Road, Centre Hall	10/90	12'9"	76'	69'
Northern Red Oak	Zerby Gap, Penn Township	9/90	14'11"	78'	97'



American Chestnut Norway Maple Chestnut Oak Northern Red Oak

Regional officials should be aware of these natural assets and may wish to implement policies to protect them accordingly.

H. HISTORIC SITES AND DISTRICTS

The following is an historical sketch of the Region and its important municipalities developed by Jacqueline Melander, Centre County Historical Society – April, 2004.

PENNS VALLEY REGION

A NATIONALLY RECOGNIZED RURAL HISTORIC DISTRICT

The Penns Valley Region -- made up of the Boroughs of Centre Hall and Millheim, and its five townships: Gregg, Haines, Miles, Penn and Potter (and historically parts of Harris and College Townships, as well) -- has been described as one of the largest, if not the largest still intact agricultural areas in Pennsylvania. Because of its historic continuation of context in both appearance and use, most of Penns/Brush Valley was declared eligible for listing as a Rural Historic District in the National Register of Historic Places in April, 2002. This listing of National Park Service eligibility, along with a formal nomination currently underway, identifies the Valley at the local, state, and at the national level, as worthy of preservation.

[29] The Notable Trees of Centre County, Centre County Historical Society, 1990.

Preliminary National Register Nomination – Description Summary:

The natural context of the Ridge and Valley landscape played a significant role in the cultural development of Penns and Brush Valley. Early paths and later roads were located along the fertile limestone valley floor, or through ridges cut by gaps. Fast moving streams, such as Penns, Elk, and Sinking Creeks and their tributaries, or underground fed springs provided the water resources needed for the settlement of crossroad communities. Centre Hall, Millheim, and Madisonburg are some examples. And the agricultural landscape of the valley was, and still is, defined by the vertical edges provided by the forested ridges, of Tussey , Brush, and Nittany Mountains.

A great deal of the proposed district's historical vernacular landscape fabric is still intact within the natural context. Agricultural patterns still persist and are visible on the landscape — farms delineated by historic hedgerows; crop lands and open fields framed by old roads; and the views and vistas from the valley and the ridges that reflect nineteenth and early twentieth century features. While farms may have changed in their operations over the last two hundred years, they have retained their visual property characteristics — farmsteads can still be identified; their overall spatial pattern perpetuates the area's historic character.

Agriculturally dependent villages, such as Aaronsburg and Rebersburg, for example, also are still intact, as are those that served as transportation centers for agricultural products and for lumber from the surrounding mountain ridges. Examples include Spring Mills and Coburn.

Preliminary National Register Nomination – Significance Summary:

The rural landscape in Penns Valley and Brush Valley is clearly related to important currents in the state's economic and social history. More specifically, agriculture in central PA -- and thus the rural landscape itself -- was initially shaped by the presence of local markets (first the iron industry, later by State College) and by the institution of share tenancy. From early on the local ironworks supplied important markets for beef, pork, feed grains, and hay. They also likely contributed to the high level of mechanization in the valleys. A substantial portion of farmers -- perhaps as many as thirty to fifty percent -- were actually tenants, farming on shares. By the mid-19th century a mixed grain-and-livestock economy had taken root, and this was the staple of agricultural production in the valleys well into the twentieth century. By the 1930s State College became a major local outlet, and its rural environs became part of Eastern urban milksheds. Tenancy, however, outlasted the iron era and persisted to the very end of the period of significance.

The significance of the extant historic rural landscape in these interconnected valleys is twofold: first, in the extent to which it conveys this agrarian past, and second in its high level of integrity.

The overall pattern of farmstead location and composition clearly illustrates the important social-economic institution of farm tenancy: a ride along the main roads reveals clusters of farm buildings consisting of a "Big" house and related, but distinct, more modest tenant housing. ***The presence of these ancillary tenant houses suggests the need for flexible land use regulations that would enable adaptive reuse of these important historic structures amid contemporary society. Local officials might wish to apply a performance approach in local zoning ordinances that would enable a wide range of potential uses and activities here so long as impacts are demonstrated acceptable within a rural context.***

The makeup of farmsteads themselves reflects the highly mechanized nature of farming here, especially in the period from about 1855-1950. For example, the "L" shaped barns accommodated threshing machinery, and ancillary buildings sheltered other machinery. Many standard Pennsylvania barns were also fitted with machine-shed extensions. These barns also indicate the predominance of the grain/livestock enterprise, since they were especially well suited to the shelter and feeding of beef animals. Only later did silos indicate the rise of dairying, and even today more farms report beef cattle than dairy animals. Finally, this essential continuity is also reflected in the strong persistence of historic field patterns, stone fencing, wood lots, windbreaks, plantings, and boundary lines.

Centre Hall Borough

> "*It is strange that this delightful location, so admirably adapted by Nature for habitation, should have been overlooked for so long a time. Perhaps the gods who preside over the distribution of town sites imitated the example of the traditional sage, who kept the best of the wine to the last of the feast, and so reserved the spot on which Centre Hall is not situated to be a fitting climax to all their former favors, in Penns Valley.*"
>
> - Rev. Ralph W, Illinworth, *A Passing Glance at Penns Valley,* 1896

The Borough of Centre Hall, located on the Penns Valley side of the gap through Nittany Mountain and at the intersection of two early roads, served for more than 150 years as the market center for the farming communities of richly agricultural Brush and Penns Valleys. Those roads, now Routes 144 and 192, also linked Centre Hall with Lewisburg to the east, the new Agricultural College to the west, and Bellefonte and Lewistown, to the north and south.

Laid out in a grid pattern with the former Centre Hall Hotel located in its central square, the town streets are lined with five-bay Georgian style houses, many that have added ells, center gables, and decorative porches, brackets, and other early Victorian details. Examples of later Victorian national styles also are part of the community's building stock and include mansard roofs, towers, and projecting gables and bays. The Progress Grange and the Reformed Church were designed by Bellefonte architect Robert Cole; he was a local proponent of those national styles. Examples of large shade trees along Pennsylvania Avenue and Church Street offer evidence of Centre Hall's efforts in town beautification projects.

The Centre Hall Foundry and Machine Works, three coach factories, a roller mill, and the Kerlin Grand View Poultry Farm were some of the industries and businesses that located in Centre Hall during the late 19th and into the 20th century. The Lewisburg and Tyrone Railroad (later part of the Pennsylvania Railroad system) brought freight and passenger service into town in 1885. Passenger service continued until the 1950s; freight until the 1970s. The old train station now houses the Whistle Stop Restaurant. The Grange, organized to promote farming and farm life, formed a local chapter in 1873 under the leadership of Centre Hall area farmer Leonard Rhone. The first Grange Fair started as a basket picnic in Leech Woods, between Centre Hall and Linden Hall, in 1874. It has evolved into the annually held Grange Fair and Encampment, located just west of Centre Hall, the oldest of its kind in the country.

Gregg Township

Gregg Township was created in 1826 from parts of Potter, Miles, and Haines Townships. It was named for the Hon. Andrew Gregg (1755-1835), a member of the Congress from

1791-1807, and United States Senator from 1807-1813. His portrait hangs in the U.S. Senate Gallery, the only Centre Countian so honored. Gregg Township was part of the Great Springs tract that had been surveyed and patented to Reuben Haines of Philadelphia in 1776. Spring Mills, at the confluence of Sinking Creek and Penns Creek represented the westernmost point of Haines' land, and the terminus of his road into Penns Valley.

Spring Mills/Rising Springs - With a sawmill and gristmill built at the confluence of Sinking Creek and Penns Creek in the early 1790s, and several sizeable springs also located nearby, it seems appropriate that first settlers gave this early community the name Spring Mills. It became the largest community and market center for Gregg Township.

When, in 1883, the Lewisburg and Tyrone Railroad made Spring Mills a destination point along its route, what had been an agricultural center changed to that of a resort town. Rising Springs became the name of the railroad station. Its role as a resort town is reflected in this description written in 1883 by county historian John Blair Linn:

> *"Israel J. Grenoble is at present busily employed in constructing a large and beautiful hotel. Its dimensions are one hundred feet long and fifty feet wide, and when completed will accommodate 100 guests. It is to cost $5000. It is located east of the village, upon a slight eminence. From its roof one can gain a view of the entire valley*."

The Cedars, located at the western edge of Spring Mills, was built by William Allison in the1870s for Allison's bride-to-be. Its design was taken from the A.J. Bicknell *Detail,, Cottage, and Constructive Architecture Pattern Book* of 1872 and is one of the county's finest examples of Victorian Gothic architecture. It has been included in the National Register listing since 1977.

Penn Hall - The Robert Cooke Tavern provided an early stop on Reuben Haines early road, later called the Bellefonte - Aaronsburg - Youngmanstown (Mifflinburg) Turnpike. This large Georgian brick building, now a B&B, provided refreshments and accommodations for travelers. It, the Jared Fisher house (listed in the National Register, 1977), and the Penn Hall Academy are a few of the buildings on either side of Route 45 that make up the village of Penn Hall. Another is the no-longer-active Penn Hall Evangelical and Lutheran Church that fronts Route 45. With its towers, crossed gables, stained glass windows, and hooded doorways, it has been an architectural landmark in this tiny village for nearly 100 years. The first Presbyterian Church in Centre County, organized in 1795, was located near Penn Hall.

Farmers Mills - Several mills were built along Penns Creek to serve the needs of area settlers, the first of these in 1815 at Farmers Mills. Rebuilt in 1864, it still stands along the creek, about two miles northeast of Spring Mills. In the 1890s a store and post office were opened in the mill house, and three blacksmiths, a shoemaker, a tannery, and a schoolhouse became part of this busy community. St. John's Union Church, dedicated in 1853, still has an active congregation; the Bethesda Evangelical Church, built in the 1880s and commonly called the Swamp Church, is a short distance away.

Penns Cave - Explored by Native Americans long before Penns Valley was settled, this limestone cavern traversed by Penns Creek was first owned by James Poe, an in-law of General James Potter. By the time Poe's daughter, Suzanna Poe Vantries, became the owner, the cave was an increasingly popular place to visit by the daring and curious. George Long became the owner in 1868. Recognizing the cave's tourist potential, his sons acquired the land that included the cave's two entrances and began to charge admission for boat trips. In 1885 they built a thirty-room hotel to house visitors, but their

business venture was not as successful as they had anticipated and the property was sold at sheriff's sale in 1905. Later sold again to the current owner, Penns Cave and hotel have been listed in the National Register (1978).

Haines Township

Already a township when Centre County was formed in 1800, the township was named for Philadelphia land speculator Reuben Haines. Haines had a road built at his own expense in 1771, in order to sell land in East Penns Valley. The road extended from the Sunbury–Lewisburg area through the Woodward Narrows to the approximate location of Spring Mills, the earliest road built in what would become Centre County.

Aaronsburg Inn

Aaronsburg - Another Philadelphia land speculator, Aaron Levy, laid out the village of Aaronsburg in 1786. It was the earliest town in what would become Centre County, along its earliest road. Aaronsburg's location near the geographic center of Pennsylvania may have prompted Levy to propose it for the state capital, as well as to anticipate its industrial future. He laid Aaronsburg out in a grid pattern of alternating streets and alleys with a wide central street, broadening into Aaron Square in its center, to allow room for public buildings. Surrounded by fertile farmland, it developed into a bustling commercial post village, but its lack of available water power, as compared with other nearby towns such as Millheim, precluded its industrial development and it shifted its role to that of a small agrarian village.

Broadsides circulated by Levy, though Jewish, noted that some lots would remain open for churches of all denominations. In addition to the churches that were built in town, his early advocacy for religious freedom became the basis for The Aaronsburg Story, a pageant attended by 30,000 people to express rejection of racial and religious intolerance in 1949. The PHMC erected an historical marker in 1997 to commemorate the event.

Early Georgian style architecture is predominant in Aaronsburg – much of it constructed in log or brick. The earliest property in the village, originally a tavern stop, was built in stone. Lots are long and narrow, often with barns to the rear. ***This pattern of land use should be specifically recognized and accommodated within local zoning regulations. Also adaptive reuse strategies for the backyard barns should be carefully crafted to permit reasonable accessory use of these structures without introducing impact that would be too intensive for the tightly-knit character of the neighborhoods.*** Aaronsburg was listed in the National Register of Historic Places in 1980. It is a well-maintained village, with several properties having undergone careful restoration in recent years.

Woodward/Motz's Bank - Situated along Reuben Haines' early road and at the western gateway through the Woodward Narrows to Lewisburg and the east, this village was originally known as Motz's or Motz's Mill. The inn was built in 1814 and served as an overnight stopping place along this early road. Inns such as this one not only provided food and lodging, but also served as a collection spot and deposit of goods, and a gathering spot for area residents. It has been in continuous use for 190 years, and listed in the National Register of Historic Places in 1978. The village was renamed for George Woodward, a candidate for governor of Pennsylvania.

Nearby is the Woodward Cave, a large dry cave with several "rooms" that was opened to the public in the 1920s. It has been the location of several Penns Valley stories,

including "A Chilling Bear Story", provided by lifelong resident Harry Burd in the 1976 publication, *Haines Township Life and Tradition.* Also nearby in the Woodward Narrows is Hairy John's Park. It was named for John Voneda, as the story goes, who was an early resident of the area and became a recluse after the death of his wife, living alone (and unshaven) for many years in the Narrows.

Ingleby/Fowler - Above Coburn and surrounded by mountains, Penns Creek runs through the tiny settlement of Ingleby, once a flag station on the Lewisburg and Tyrone Railroad. Lumber and lumber products were carried out of the mountains, and railroad passenger service provided access to this scenic high valley. In the 1880s Dr. Frank Barker, a veterinarian, purchased 500 acres to lumber, establish fruit farms, and breed horses. He built a large home and opened a resort in the mountains, Barker's Resort for Health and Pleasure, and later sold land for cottages and hunting camps. Fowler was the railroad station name for this community.

Miles Township

Miles Township (1797) was named for Colonel Samuel Miles, a Revolutionary War officer, founder of Centre Furnace, and mayor of Philadelphia when it became the nation's capital in 1791. Miles began acquiring land in Brush Valley as early as 1772; twenty years later he held warrants for 7000 acres. Nestled in a long and narrow valley between mountain ridges, Miles Township's rich agricultural land and nearby water supply encouraged early development by German settlers from southeastern Pennsylvania. They were aided in their settlement by the "great road" that Miles placed through the middle of Brush Valley, that straightly paralleled the mountain ridges. He extended the road from Union County through his township agricultural lands to connect with his Centre Furnace ironmaking operations. The road became a major transportation route for travelers and local families. Miles divided his landholdings in the township into north-side and south-side farms of 275-350 acre tracts. Each farm had frontage on the road, and each was separated along warrant lines with fence rows. Some of those separations are still visible.

Rebersburg - Rich farm land and a nearby water supply encouraged early development along Colonel Miles' road. Conrad Reber acquired a portion of Miles' land and laid out the village in 1809, in a series of uniform 60- x 90-foot lots or multiples of them, spread in a thin ribbon along each side of Brush Valley Road. Five equally spaced small side roads cut horizontally into this vertical main street. A collection of early double connected row houses and four-over-four housing examples reflect the early establishment of this village. ***This unusual configuration of housing should be reflected in local land use regulations.*** Victorian styles were added at either end as the village grew, but their placement continued to follow Reber's plan.

The Village of Rebersburg was listed in the National Register of Historic Places in 1979, and offers an excellent example of a 19th century agricultural village of vernacular and Victorian architecture.

Madisonburg - Named to honor James Madison, Madisonburg became an agricultural center along Miles' new road and as an intersection to roads leading into Little Nittany and Penns Valley. The village added a post office and general store, and a tavern to accommodate travelers.

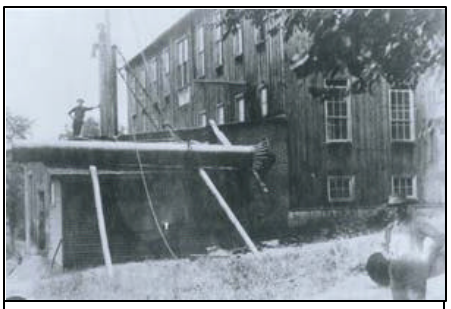
In 1833 Simon Pickle built a two-story sandstone Georgian house that served as both a tavern and a residence. This finely crafted building, located at the intersection of the road leading into Little Nittany Valley, was listed in the National Register of Historic Places in 1982.

Centre Mill - Operated by water power from Elk Creek, this substantial mill was built in 1802 to serve area farmers who until that time had traveled as far as Kishacoquillas Valley, across two mountain ridges, for their milling needs. A community developed around the mill, one of the largest structures in the valley. It is the only remaining stone mill in Centre County, and was one of the earliest county properties listed in the National Register (1976).

Livonia - Adam Stover came into Centre County in 1800. His home, near the junction of roads converging from Union, Centre, and Clinton Counties, began to be used by overnight travelers and eventually served as a hotel known for its good food and hospitality. Livonia later became a mountain retreat with city visitors staying at the Stover Hotel well into the 20th century. Purchased to become a hunting camp, it burned in the 1960s. The Raymond B. Winter State Park is just east of Livonia, in Union County.

Millheim Borough

During the 1770s Jacob Hubler built a gristmill and sawmill along the banks of Elk Creek, the first of many to flourish in Millheim, the Town of Mills. Other water power industries developed over the years included planing mills and woollen mills. The importance of the town was further enhanced by its location at the junction of four roads, including one through the Millheim Narrows to Brush Valley and another along Reuben Haines early road to Union County. By the 1870s Millheim had become the industrial, commercial, and residential center of Penns Valley with thirteen mercantile establishments and twelve major industries including new mills, two foundry and machine shops, two tanneries, a cement/lime kiln, and a chair factory. Two large hotels were added (one of them at the site of the current Millheim Hotel), and the Lewisburg, Centre and Spruce Creek Railroad connected Millheim to the area and beyond. A large hosiery mill and a silk mill continued operating well into the twentieth century.



Millheim Hosiery Mill

Much of the architecture in the center of Millheim dates from the early 1900s, replacing buildings that were destroyed in two earlier fires. The residential character of the town's architecture is a combination of some very good examples of Georgian and Victorian style buildings, combined with some mail-order houses dating from the 1920s and 1930s.

Millheim was listed in the National Register of Historic Places in 1986. In January, 2004, Millheim established a local historic district under PA Act 167. It is one of two municipalities in Centre County (the other is Bellefonte) that has established a local district.

Penn Township

This township was formed in November, 1844 out of the western part of Haines Township and a portion of Gregg Township. Mifflin County is to the south of Penn Township, and Brush Mountain is to the north. German families came early and made farming the major industry of the region, although a brisk lumbering trade also is important to the area's history.

Coburn/The Forks - At the confluence of Penns, Pine and Elk Creeks and originally called The Forks, early settlers used the creeks to carry farm and lumber products on rafts to markets downstream. The town known as Coburn developed a century later, in 1886, as the result of James Coburn and the Lewisburg, Centre, and Tyrone Railroad connecting this location with Spring Mills. In its heyday, four daily passenger trains and two daily freight trains stopped in Coburn. Flour mills and factories were established, and Coburn became a distribution center for nearby Millheim, Aaronsburg, Madisonburg, and Rebersburg. Surrounded by dense forests, a brisk lumbering trade became the area's core industry. Rote's Mill still stands west of Coburn along Penns Creek.

Most of the houses were built between 1880 and 1896; almost every house has gingerbread detailing. Two local builders, Andrew Harter and Thomas Meyer, used locally milled lumber to fashion two and three story buildings with sweeping verandas. L-shaped plans dominate the town, being combined to produce a variety of configurations. Two churches located along the main street portray some excellent brickwork and stained-glass windows. The homes are masterpieces of Victorian workmanship, with careful attention paid to every detail.

Nearby is the Millheim-Siglerville Pike**,** that can be reached from the Penns Creek Road between Coburn and Spring Mills. This narrow, but fairly smooth dirt road crossed the Seven Mountains into Mifflin County. It later was used to reach the lumber camps in Poe Valley. It is a gateway to the Bald Eagle Forest and four of Centre County's outstanding scenic overlooks: Penns View; Bells Majestic View; Ingleby View; and Raven's Knob.

Poe Mills - Located in Poe Valley adjacent to Penn Township and connected to Mifflin County via the Millheim – Sieglerville Pike, Poe Mills became a booming logging location in the 1890s with a population of more than 300. It provided employees with houses, stores, a post office, and the Poe Mills School. A few nearby hunting cabins were originally loggers' homes.

Potter Township

The oldest in the County, Potter Township was first settled in 1767 and incorporated by Northumberland County in 1774. It was named for General James Potter of Revolutionary War fame, who first saw his Penns Valley "empire" in 1765 from atop Nittany Mountain at the crest between Pleasant Gap and Centre Hall. In the early 1770s he returned to the site of his explorations, began to acquire land, and built a home.

> *Captain James Potter was a man of strong and penetrating mind, and one to whom early habits rendered a life of peril, toil and enterprise familiar. . . As an officer of the British Provincial Army, engaged in the defense of the frontier, he conceived the natural idea that enclosed by the range of mountains which on every side met his view . . . there must be a fine country. . . . He set off with one attendant in the summer of the year 1764 . . . and having reached the top of Nittany Mountain, Captain Potter, seeing the prairies and noble forest beneath him, cried out to his attendant, 'By Heavens, Thompson, I have discovered an empire.'* - John Blair Linn, *History of Centre and Clinton Counties,* 1883

Old Fort/Potter's Fort - Captain James Potter, the discoverer of Penns Valley, returned to the site of his explorations in 1774 and built a home near what became known as Old Fort. In 1777, when Indian raids in the area became more frequent, he erected a stockade around his home and the nearby spring. His home and combined fort became the anchor in the chain of three forts located at the foot of Nittany Mountain for defense against Indians.

By 1778, Indian conflicts were on the rise. East of Old Fort, along Indian Lane, is a marker commemorating an Indian attack that resulted in the deaths of two soldiers

stationed at the fort. And during the same year, the murder of the Jacob Standford family at their home west of Old Fort (Standford log house, Rimmey Road) was followed by the "great runaway" of July, 1778. Nearly every resident left the valley, traveling over the Seven Mountains and to the safety of settlements further south.

In later years, Potter's Fort served as a tavern, and in 1825 it was replaced with a stone hotel and tavern built by Potter's two grandsons, James and John. The building still stands at the intersections of routes 45 and 144. Photographs and measured drawings were made in 1935-36, and have been recorded as part of the Historic American Buildings Survey in the Library of Congress collection.

East of Old Fort along Middle Road is the Andrew Gregg House. Built probably as early as 1801, it is an excellent example of a small Georgian "mansion" with especially fine stonework. The doorway detail is particularly noteworthy with an elliptical arched entranceway and fanlight. Gregg, originally from Carlisle, married Martha Potter (General James Potter's daughter), and came to the area in 1789. He was elected to Congress and served in the House (1791-1807) and as a U.S. Senator (1807-1813). His portrait hangs in the U.S. Senate A gallery, the only Centre Countian so honored. Locally he was one of the original trustees in the formation of Centre County, and was the first president of the Centre Bank of Pennsylvania. The house is listed on the National Register of Historic Places (1977).

Nearby, the Samuel Houston house offers another of several examples in the valley of carefully designed, large houses, reflecting the early arrival of new residents from more settled parts of Pennsylvania and their familiarity with the detailed architecture of those areas.

Egg Hill Church

Jacob Albright founded the Evangelical Association in 1800 and the church established at Egg Hill, east of Old Fort and route 144, was one of the earliest charges of that denomination. Located in a remote setting, the first church was built in 1810, this one in 1860. Its simple design is in keeping with Albright and his followers' idea of religious humility. Albright's itinerant ministers served the Egg Hill Church and other Evangelical churches in the central part of the state. They traveled over the region spreading their faith, and encouraging westward migration. The church is listed in the National Register of Historic Places (1979).

Nearby is the Daniel Waggoner Homestead, also listed in the National Register (1979). This log house and barn are representative of the building techniques brought to the area through the migration of Pennsylvania German settlers from the southeastern part of the state. The house was built in about 1809 with a characteristically off-center doorway and with windows of somewhat unbalanced placement. It is in contrast to the symmetry of the Georgian styles brought to the area by English and Scots-Irish settlers. It has a central chimney — the fireplace serving as a focal point of the interior of the house, separating the kitchen from the remaining first floor living space. The log barn has two cribs, used for storage and stabling, that are separated by but accessible from a wide runway.

The small village of Earleystown was located one mile west of Old Fort, on the old road that connected Sunbury and Bellefonte. A hotel/tavern and a post office once were part of this community, but only the Earleystown School building offers evidence of its settlement.

The Calvin Neff Round Barn, west of Old Fort, is probably Centre County's most familiar

landmark. While Pennsylvania remained a stronghold of the traditional bank barn, round barns had begun to appear in the midwest when Calvin Neff saw them in a train trip west in 1892. In 1910 he designed one, hiring Aaron Thomas, a Centre Hall carpenter, to built it. While it undoubtedly caused a stir in the valley, it did not become a popular alternative barn design in Centre County. Only three were built, and this is the only one that remains. It has been listed in the National Register listing since 1979.

Also west of Old Fort is Rhoneymeade, located on Rimmey Road, north of Route 45 and to the south of Brush Valley Road. This property was part of the 1035 acre Manor of Nottingham. Warranted in 1763 and surveyed in 1766, it originally was included in the prime land that William Penn and his descendants took as "Manors" when new land was being opened to warranting. Michael Rhone began clearing this high ground in Penns Valley in 1794. In 1853, Michael's grandson, Leonard Rhone, first Master of the Grange, finished building the brick farmhouse and gave it its name. It was listed in the National Register in 1985. The grounds now serve as an arboretum and sculpture garden and are open to the public.

Another property listed in the National Register (1977), is the John Neff Homestead, located west of Centre Hall on Brush Valley Road. This log house was the home of one of the earliest larger farmers in the region. The kitchen portion of the house may have been built as early as 1800. The two symmetrically placed front doors reflect the influence of German building traditions. One door was infrequently used and led into the parlor for special occasions, the second door opened into the everyday room. The property also includes one of the very few remaining stone bank barns in the county.

Centre Hill - A tiny stone-walled cemetery is all that remains of the village of Centre Hill (south of Old Fort, and west of Route 144). One of the oldest cemeteries in Centre County, it is located near the former site of Sinking Creek Presbyterian Church. The church was built in 1793, the second Presbyterian Church to be built in the County. A brick structure replaced the original log church in 1843, and after the congregation disbanded, it was razed in June 1900. Several prominent members of the Potter family, including Judge James Potter (1767-1818) son of the original General James Potter, are buried there.

Red Mill - Originally known as McGrew's Mill, it was the location of the first saw and grist mill in Potter Township, and viewed as the most successful mill seat of the central valley. General James Potter recognized the water power potential of Sinking Creek for this and other mills that were located nearby when he was accumulating his landholdings in the 18th century; and Centre Furnace ironmaster and entrepreneur Moses Thompson made it part of his holdings 100 years later. The Red Mill no longer exists.

Potter's Mills/Potter's Bank - Three generations of Potters are associated with this community, nestled at the foot and northern end of the gap through Seven Mountains. General James Potter, moving from Old Fort, built his second log house in 1788, as well as a tavern to serve travelers along the early road that connected Bellefonte and Lewistown. A year later he added a gristmill and sawmill. His son, Judge James Potter, opened a store in 1790 and a few years later built a stone gristmill. In 1817 Judge Potter built a half-Georgian brick home nearby. The store at Potters Mills is one of the oldest continuously operating stores west of the Susquehanna River in the nation.

Grandsons John and James Potter were also involved in the development of Potter's Mills, and in 1824 replaced the early log tavern with a brick hotel, now substantially enlarged and known as the Eutaw House. A year later they built the stone hotel at nearby Old Fort. In less than a decade they had added a woolen mill. But in 1847 the junior

Potters experienced a financial disaster, and two years later with debts of a million dollars, their "empire" was sold at a sheriff sale. The sale included the grist mill, woolen factory, store, tavern, and Judge Potter's half-Georgian brick house. The house was purchased by a prominent township businessman, William Allison, and substantially enlarged with a Victorian addition to meet his needs and the architectural tastes and styles of the mid-nineteenth century. The house and extensive farm complex is listed in the National Register

Tusseyville - Churches in and near the village of Tusseyville gave it its original name, Churchville. The earliest, a log structure, was built in 1797 to jointly serve two congregations, Lutherans and Reformed. They later merged to become the Tusseyville Emmanuel Union Church, building the present church in 1836 and a focal point of the village. Followers of Jacob Albright established an Evangelical Association Church nearby in 1858. When a post office was established in 1878, Churchville was renamed Tusseyville.

Several business enterprises were located in the buildings that make up the village of Tusseyville. They included a general store, millinery shop, sawmill, cider press, blacksmith shop, and creamery. H. Rossman, the local undertaker, made wagons and furniture, as well as caskets. Remnants of a quarry and lime kilns are still visible. The Tusseyville school is now a private residence.

Nearby, William Colyer built a sawmill, and lumbering became the chief industry of this small community at the edge of Tussey Mountain called Colyer. A post office, general store, and two churches served area residents. In the 1960s the Pennsylvania Fish Commission placed a dam on Sinking Creek to create a recreational area, Colyer Lake.

HISTORICAL SITES AND DISTRICTS OF THE PENNS VALLEY REGION

Pennsylvania Act 167-1961 enables local governments to regulate the alteration, demolition or erection of structures within designated local historic districts. Such districts should consist of an area with a significant concentration of historic structures as identified by an inventory and might overlap or entirely include National Register Districts. Proposed local historic districts must be approved by the Pennsylvania Historical and Museum Commission (PHMC) and a Historic Architectural Review Board (HARB) established to provide guidance to governing body decisions on proposed actions within these areas.

Municipalities following this path should then adopt local historic preservation ordinances to be administered by the HARB which apply to local historical districts. These ordinances should contain suitable historical review standards addressing proposed demolitions, alterations and removals of structures, as well as assuring the architectural and historic compatibility of new development with the existing character of the District.

On January 21, 2004, the Millheim Borough Council adopted Ordinance No. 213. This created the Borough's historic district and enable the appointment of its Historical Architectural Review Board. This Ordinance was subsequently certified by the Pennsylvania Historical and Museum Commission on March 17, 2004. This ordinance, except in case of emergencies, prohibits the relocation, demolition or razing of a building or other structure, or any part thereof located within the defined historic district. It also established general design guidelines to regulate activities that would alter the character and/or appearance of historic structures.

In addition to the HARB District, Millheim Borough also has a National Register Historic District that encompasses a concentration of early 20th century buildings that were built to replace older structures that had been destroyed in two previous fires. This National Register Historic District is depicted on the Cultural Features Map. Within this District, local property owners are eligible for federal tax credits for the costs of rehabilitating historic sites according to the US Department of Interior Design Standards for Rehabilitation.

Beyond Millheim Borough however, the Region has a wealth of important historic resources. During the 1970s, local volunteers conducted a preliminary historic sites inventory for Centre County. This inventory is on record with the PA Historical and Museum Commission in Harrisburg. It identified some 3,341 sites within the Penns Valley Region.

As part of this inventory and in the following years a few of the Region's historic sites have been listed on the National Register of Historic Sites. This is important as sites listed on the Register are afforded the same level of protection from potential government-funded or sponsored actions that could adversely affect such sites. The following tabulates those sites listed on the National Register by municipality.

National Register Historic Sites and Districts		
Map No	**Site Name**	**Acres**
Centre Hall Borough - None		
Gregg Township		
7	Andrew Gregg House	10
8	Penns Cave & Hotel	570
9	William Allison House	15
10	Major Jared B. Fisher House	10
Haines Township		
12	Aaronsburg Historic District	997
13	Woodward Inn	1
Miles Township		
14	Simon Pickle Stone House	1
15	Centre Mills	95
16	Rebersburg Historic District	1600
Millheim Borough		
11	Millheim Historic District	1270
Penn Township - None		
Potter Township		
1	Major John Neff Homestead	10
2	Leonard Rhone House	23
3	Neff Round Barn	3

National Register Historic Sites and Districts		
Map No	**Site Name**	**Acres**
4	Potter-Allison Farm District	1360
5	David Waggoner Log House and Barn	10
6	Egg Hill Church	23

As can be seen, a small percentage of the total inventoried sites within the Region have been listed on the National Register. The vast majority of the Region's historic sites have an "undetermined" National Register status which means that they might be eligible.

Potter Township's Round Barn; a National Register Site
Source – Norman Lathbury

"A preliminary National Register Rural Historic District nomination was submitted by Centre County Historical Society (CCHS) to PA's Bureau for Historic Preservation in fall of2001, and in 2002 the district was declared eligible for listing on the National Register of Historic Places. This listing of eligibility, along with a formal nomination that is currently being prepared, identifies the Valley as one of the largest, if not tbe largest still intact agricultural areas in Pennsylvania. The eligibility designation puts into place a Section 106 required environmental review if federally funded or federally assisted projects are being considered for Penns/Brush Valley.

"Three communities in Penns/Brush Valley are already listed on the National Register, each of them for approximately twenty years - Aaronsburg, Rebersburg, and Millheim.

"Specifics about the National Register of Historic Places

- The National Register of Historic Places is the nation's official list of districts, sites, buildings, structures, and objects significant in American history, architecture, archaeology, engineering, and culture.

- National Register listing is an honorary designation. It signifies that a property or a collection of properties -- a district -- are special, unique, worthy of preservation - at the local, state, and even at the national level, bnt it does not limit an individnal property owner from making changes to his or her property.

- **National Register properties or districts are given special consideration when federally funded or federally assisted projects are being considered.** For example, highways being planned near a listed property or through a **designated or eligible for listing** district are subject to environmental review under Section 106 of the National Historic Preservation Act.

- A **National Register Rural District listing provides an inventory** of individual components within an area. It identifies how those historic, cultural, and environmental components fitted together in the past; how they have evolved over time; and how they have contributed and continue to contribute to providing an area - in this case, Penns/Brush Valley - with a unique set of

surroundings, a unique quality of life, and one that is worthy of preserving and enhancing.

- National Register listing is a planning tool. In the case of a Rural Historic District, it offers ways in which to highlight and preserve an area's historic, cultural, and natural resources.

  It highlights the importance and encourages the preservation of agricultural properties by combining historic agricultural/farm designations with other protections available through agricultural preservation programs.

  It identifies landscape patterns: reflected in farm fields, hedge rows and tree lines; it offers protection to vistas and viewsheds; to old roads and archaeological remains; and to streams and wetlands that are part of the historic and cultural context of the rural district.

  It highlights the importance and encourages the preservation of historic towns and villages: by identifying their past accomplishments; by urging their revitalization and reuse; and by encouraging new development that is compatible with and in context with these historic communities.

  It can offer revitalization, redevelopment, and potential economic vitality to the Valley through benefits derived by heritage tourism - a "gentle" tourism that recognizes, preserves, and enhances the area's uniqueness.

- National Register property owners may be eligible for federal tax benefits.

- National Register property owners may qualify for federal assistance for historic preservation funds when the funds are available.

"Listing in the National Register of Historic Places is sometimes confused with local legislation developed within and by a local municipality. To clarify: local historic district legislation is, as the name suggests, locally legislated by township supervisors or borough council members."[30]

An effective historic preservation program does not necessarily require a strict program of architectural control like that proposed in Millheim Borough. Some municipalities are not ready for such a rigorous approach and have adopted more voluntary approaches. First, they clearly designate historic sites and widely publicize their existence. Next, they adopt an "overlay zone" that requires a "waiting period," during which would-be developers and property owners are encouraged to meet and "rub elbows" with local or County historic preservation experts, before they substantially alter or demolish an historic site.

Oftentimes, this meeting will give the experts a chance to present other suitable building options that are more consistent with the site's character and will enhance the property's value. In other instances, the waiting period gives the community the opportunity to devise other adaptive reuse options for buildings that are proposed for demolition. In either event, such worthwhile efforts require some commitment on the part of local

[30] CCHS Report on National Register Rural Historic District Nomination for Penns/Brush Valley - Part II

municipalities to take the next step toward historic preservation.

Another intermediate approach to historic preservation is the Historic Conservation District. Often established as an overlay district, an Historic Conservation District is designed to preserve and enhance the character of a neighborhood or region by encouraging infill development and new construction that respects the context of the existing built environment and its appearance. New construction and demolition are the activities regulated most frequently in conservation districts. The municipal zoning officer usually handles administration.

Gregg Township's Sunflower Farm
Source – Norman Lathbury

The conservation district varies from the historic architecture review board district in that exterior change to existing buildings is usually not a regulated activity.

A conservation district could be an alternative to a historic district, in the sense that, it does not focus primarily on the historic architecture and its character-defining features but rather the cultural significance of an area. The emphasis is to preserve the physical character of an area i.e. the farmscapes of Penns Valley or the unique character of Region's various villages.

"Local officials are encouraged to consider the benefits of these voluntary approaches and gauge public reaction. Staff of the Centre County Historical Society can assist in these efforts. If response is favorable, local interested citizens should be deputized to continue the process and work with this organization. The following list some of the actions that can better incorporate historic preservation within the Region.

"Successful historic preservation involves more than a mere compilation of data. Rather, it should recognize the importance of its historic defining features and indicate how those features relate to the future by:

1. ***Establishing realistic goals to implement suitable preservation guidelines and standards. Realistic goals should be established that are adopted with considerable public scrutiny and support (make sure that goals are achievable);***

2. ***Identifying individual resources and districts based on the survey that could be eligible for the National Register of Historic Places and apply for listing in the Register;***

3. ***Adding regulations into the zoning ordinance which will help achieve historic preservation goals, like the review of demolitions; design guidelines for infill construction; Historic Overlay Zones; incentives for adaptive reuse, rather than demolition, etc.;***

4. ***Updating existing zoning regulations to resolve conflicts with historic preservation goals,***

like incompatible uses, excessive setbacks, required off-street parking, reduced lot coverage, etc.; and,

5. ***Developing partnerships with community groups and organizations to facilitate a public education initiative about local history and the historic resources in the municipality."***[31]

I. ARCHAEOLOGICAL RESOURCES

The Cultural Features Map depicts a layer of data about archaeological sites. Specifically the Pennsylvania Historical Commission's Bureau for Historic Preservation conducted an inventory of archaeological sites within Centre County. Then the County was divided among 4-square mile hexagons and the number of sites was recorded in each hexagon. This forms the basis if the data depicted on the Cultural Features Map. The Region has apparent archaeological significance; however, the actual location and descriptions of these features are not released to the general public.

The Bureau maintains an extensive inventory of archaeological resources across the Commonwealth and administers this inventory through the Pennsylvania Archaeological Site Survey (PASS). The PASS files contain over 18,500 identified archaeological sites within Pennsylvania. This inventory is being updated and added to on a continual basis as new resources are identified through survey projects, National Register listings, reports generated through the Section 106 and History Code compliance process and submissions from private property owners. The files are open to the public by appointment. Confidentiality restrictions apply to the PASS files to protect archaeological site locations.[32]

"The Commonwealth's Archaeology Program (CAP) was created to manage and protect archaeological resources that are affected by projects requiring only state permits and no other state or federal involvement. The CAP performs preliminary testing on identified significant archaeological sites that will be affected by state permitted projects prior to the loss of the site through new construction. CAP maintains a well-equipped archaeological laboratory and storage space where all artifacts recovered during field investigations at these state-permitted projects are processed and analyzed. Artifact data is managed by a computer database program where it is manipulated, analyzed, and ultimately used in the preparation of project reports."[33]

J. PENNSYLVANIA CENTURY FARMS PROGRAM

"The idea of a Century Farms Program, aimed at emphasizing the importance of our economic and rural heritage and our traditions, was initiated in the New York Agricultural Society in 1937. Farms which had been in the same family for over 100 years were honored in ceremonies at Albany as members of the Order of Century Farms. In 1948 the Bradford County Historical Society of Pennsylvania began its own program, similar to the one in New York. Several other states have similar programs, among them are Michigan, New Jersey, Iowa, Minnesota and Oregon. Michigan has over 3,000 certified Century Farms.

"The Pennsylvania Department of Agriculture currently administers the Century Farms Program. The program is designed to stress the importance of agriculture --specifically

[31] Letter from Carol E. Wilson, Historic Preservation Specialist to Harry Roth
[32] http://www.phmc.state.pa.us/bhp/inventories/overview.asp?secid=25 (1/23/03)
[33] http://www.phmc.state.pa.us/bhp/cap/overview.asp?secid=25 (1/23/03)

the family farm -- to all Pennsylvanians. To become a recognized Century Farm, the farm must have been owned by the same family for the past 100 consecutive years and a family member must still live on the land. The farm must also contain at least ten acres of the original holdings or gross over $1,000 a year from the sale of farm products. Over 1,900 farms have been certified for the program. The information on the applications and other information supplied by the applicants will be filed in the Archives of the State Historical and Museum Commission.

"For more than a century, from 1725 to 1840, Pennsylvania led the other colonies and states in the production of food. Our pre-eminence in farming was due both to the varied agricultural genius of the nationalities, which settled here, and to the rich heritage of the land itself. Here in the "breadbasket of the nation" were laid the foundations of much that has been significant in American agricultural progress, and the basis for us to continue growing quality food for our
families.

"The first non-native farmers in Pennsylvania were the Dutch who settled in the Upper Delaware Valley near Stroudsburg as early as 1659. After William Penn's arrival, the English, German and Scotch-Irish became the majority of settlers. To many Europeans, the passion for emigration to Pennsylvania was unaccountable. "That a man should voluntarily abandon the country that gave him birth, the church where he was consecrated, the tombs of his ancestors, the companions, friends and all the pleasures of polished society to expose himself to the dangers and difficulties of conquering savage nature" was sheer idiocy.

"Yet the pioneering farmers of Pennsylvania persevered through all kinds of difficulties. The hardships of pioneer farming were offset by its compensations. Certain virtues and ideals were developed -- thrift, close family and community ties, cooperation, reverence for the Creator, self-reliance and a love of liberty. During the Revolution, it was Pennsylvania's farmers who led the way to the Declaration of Independence and constituted a majority of the Pennsylvania contingent in the Continental Army. The frontier spirit carried through the Revolution and is now deeply rooted in our farm families. Their love of land, nature and liberty is second to no other group.

"The population of Pennsylvania at the outbreak of the American Revolution was 98 percent rural. Practically all of the activities of the early settlers were organized around providing food and fiber for family and friends. Yet throughout the first 200 years of colonization and statehood in Pennsylvania, farmers were the most important element in our population. Farmers dominated the economic and political life of the commonwealth, not only due to the fertilize soil and effective farming methods, but also due to the character of the farmers themselves.

"The Century Farms Program has been created to recognize those farms and farm families which have done so much to contribute to Pennsylvania's heritage. The farms and families have greatly varied histories, yet all have the common denominator of a durability and love of the land that is our Heritage ..."[34] Within the Penns Valley Region there are five PA Century farms as tabulated below:

Century Farms of the Penns Valley Region		
Municipality	**Farm Name**	**Acreage**

[34] http://www.agriculture.state.pa.us/agriculture/lib/agriculture/centuryfarm.pdf

Gregg Township	Barger	157
Haines Township	Winkelblech	147
Haines Township	Orndorf	130
Penn Township	Royer - Frankenberger	142
Potter Township	Rossman	104

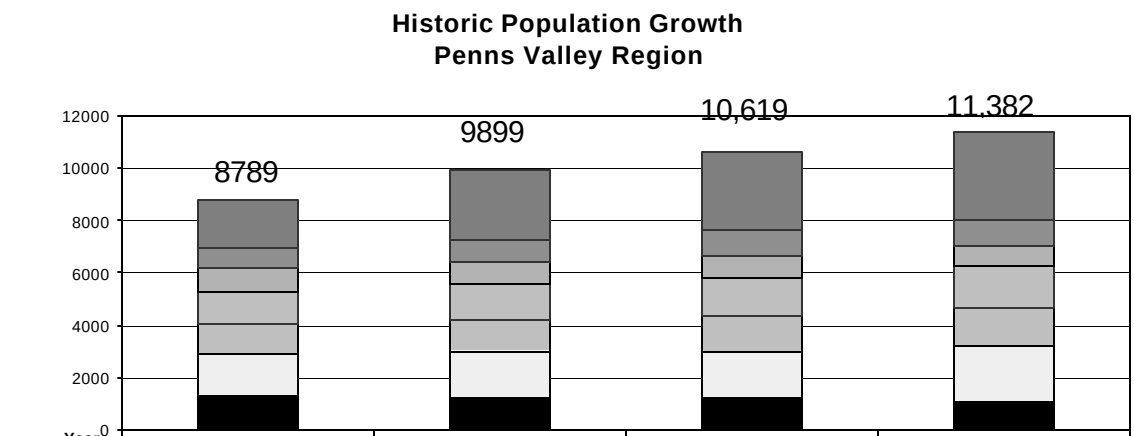
Local officials should ensure that these valuable resource be situated amid protected agricultural settings so that this heritage may continue.

IV. Demographics

The allocation of municipal resources must consider the population to be served. Population, housing and economic analyses are a principal component of any comprehensive plan. Obviously, the overall size of a population is related to the amount of land, manpower and services to be provided. In addition, particular groups within the population have different needs. This section will present past, current and expected population statistics in order to determine the Region's needs.

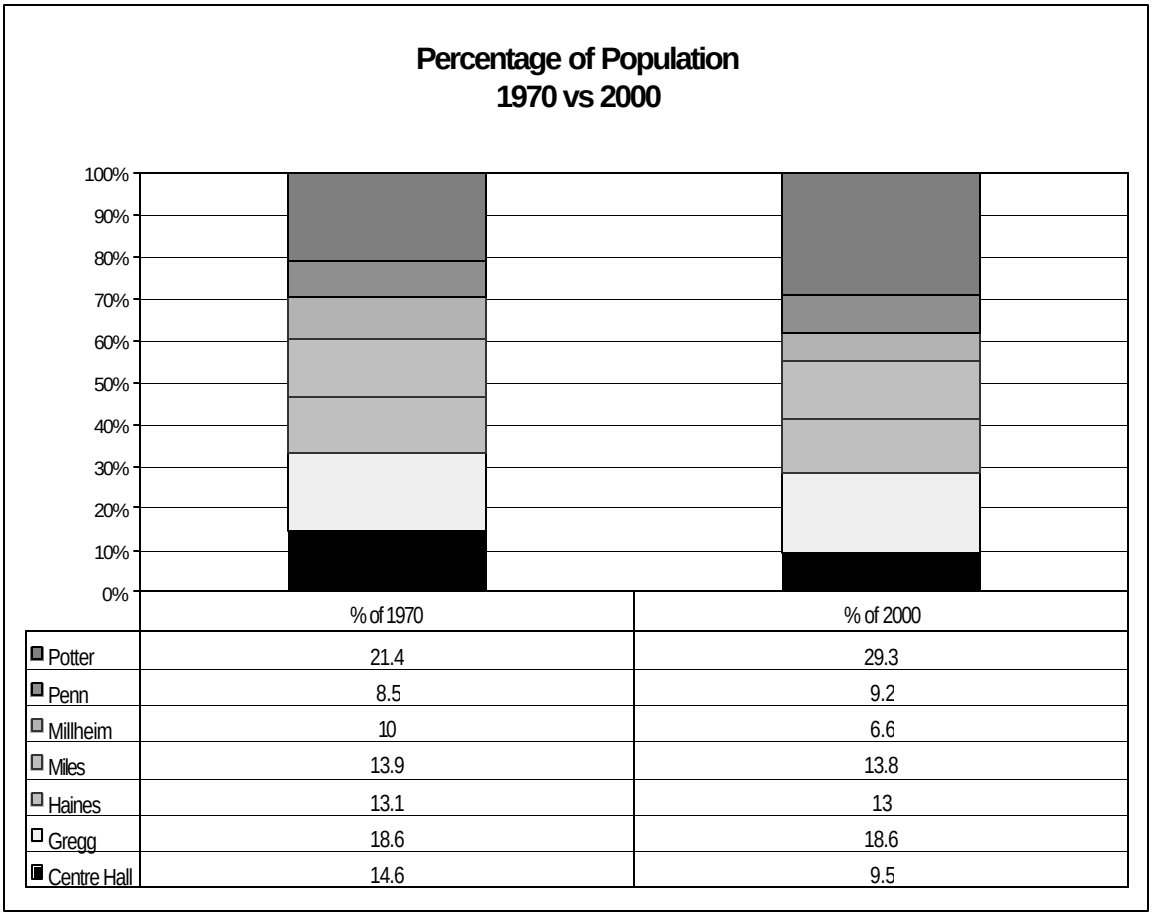
A. Historic Population Growth

The historical growth pattern of an area provides insight as to the growth that might be expected in the future. The following table lists the amount of population growth that has occurred over the last 30 years within each municipality of the Region.



Year	1970	1980	1990	2000
Potter	1878	2643	3020	3339
Penn	749	853	935	1044
Millheim	871	800	847	749
Miles	1224	1375	1494	1573
Haines	1147	1217	1315	1479
Gregg	1638	1778	1805	2119
Centre Hall	1282	1233	1203	1079

From the above graph, several trends are visualized. First, the Region has realized a very steady rate of growth since 1970 averaging about 864 new residents each decade. Potter Township has at all times been the most populous municipality within the Region despite a slowing-down of growth since 1980 and remains the most populous Township within the Region. Potter Township has also experienced the most growth over the last 30 years, adding 1461 people. Both Centre Hall and Millheim Boroughs lost population since 1970 while each of the remaining Townships had modest increases.

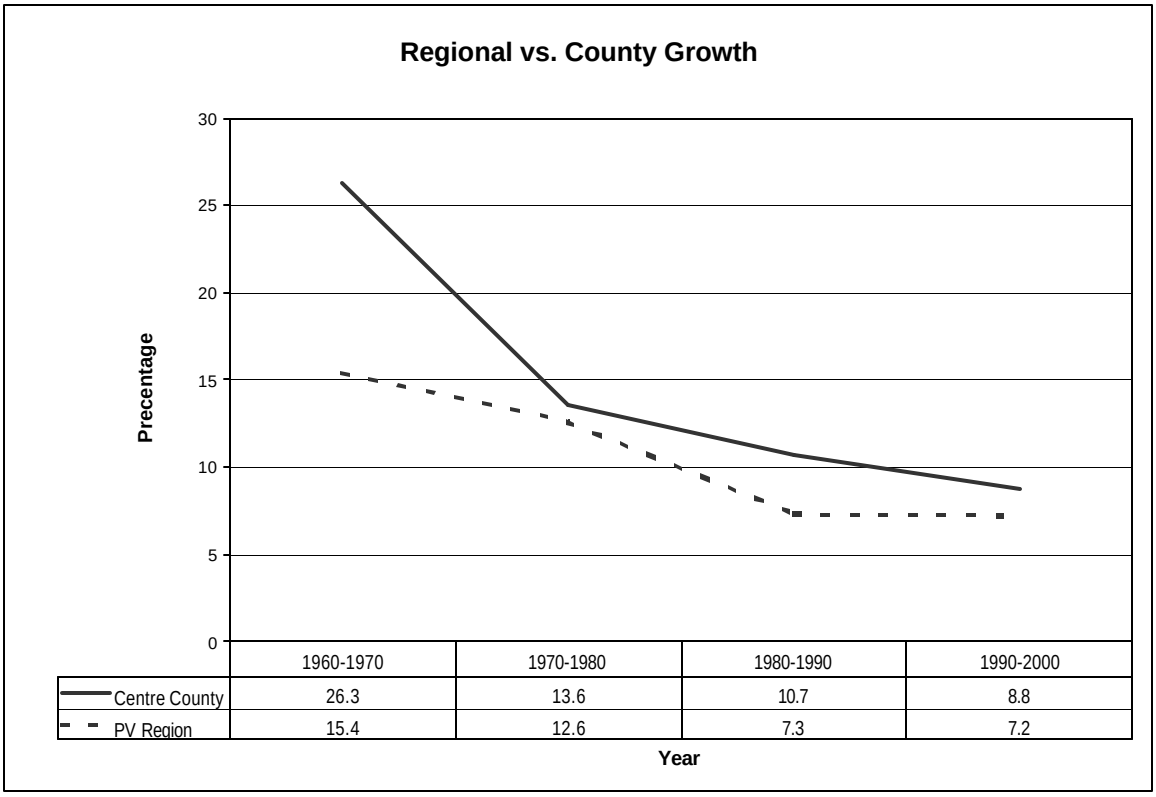


	% of 1970	% of 2000
Potter	21.4	29.3
Penn	8.5	9.2
Millheim	10	6.6
Miles	13.9	13.8
Haines	13.1	13
Gregg	18.6	18.6
Centre Hall	14.6	9.5

Another important trend deals with the type of growth occurring within the Region. The last 30 years have witnessed increasing suburbanization across this country. The large-lot suburban developments begun in the mid-1900s have swept far and wide even within Centre County. The above table reveals this trend within the Penns Valley Region as Centre Hall and Millheim Borough's share of the Region's population has declined in favor of growth particularly within Potter Township and, to a lesser extent, Penn Township. Conversely, Gregg, Haines and Miles Townships, each have almost exactly the same proportion of the Region's population now as they did in 1970.

Left unchecked, suburban trends will threaten the rural character of the Region. This trend can also have consequences for the delivery of public services. When once the population and activity centers were anchored within the Boroughs, where a wide range of public facilities and services are offered, the outward shift of population into the country strain local officials' ability to provide similar levels of service within less dense suburban neighborhoods. Fortunately this Plan can reverse these trends by focusing growth and appropriate services into compact growth areas and thereby relieve pressures to develop outlying areas.

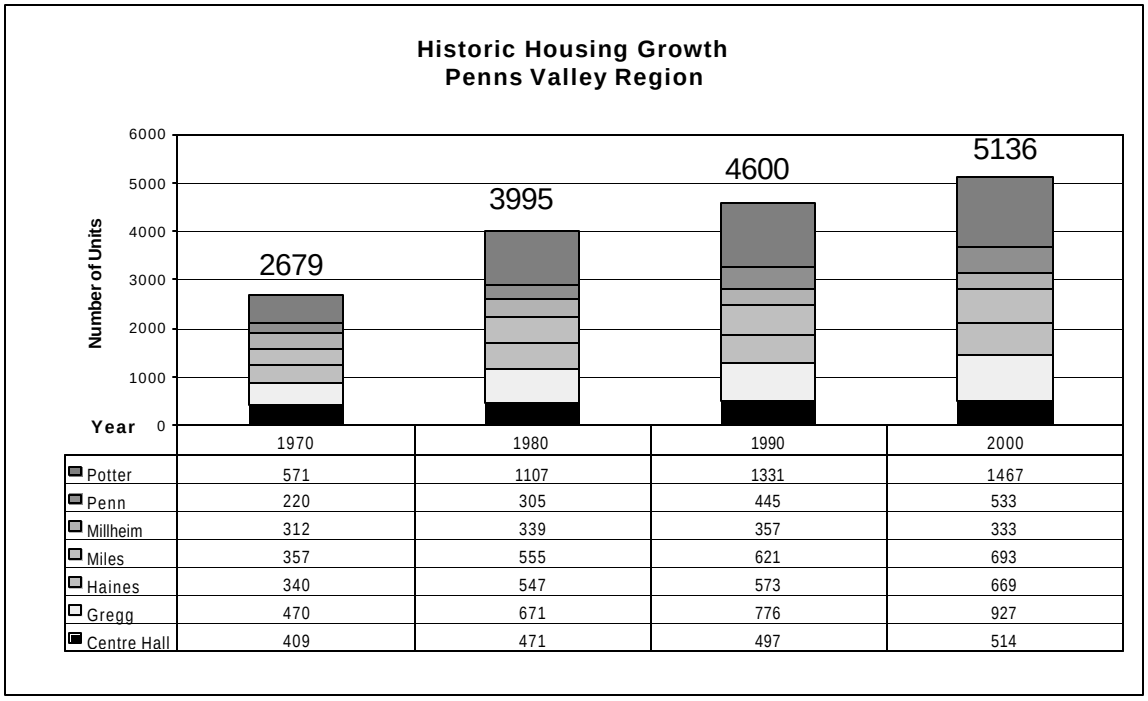
Next, a comparison of growth within Centre County and the Region can provide further insight into future expectations.



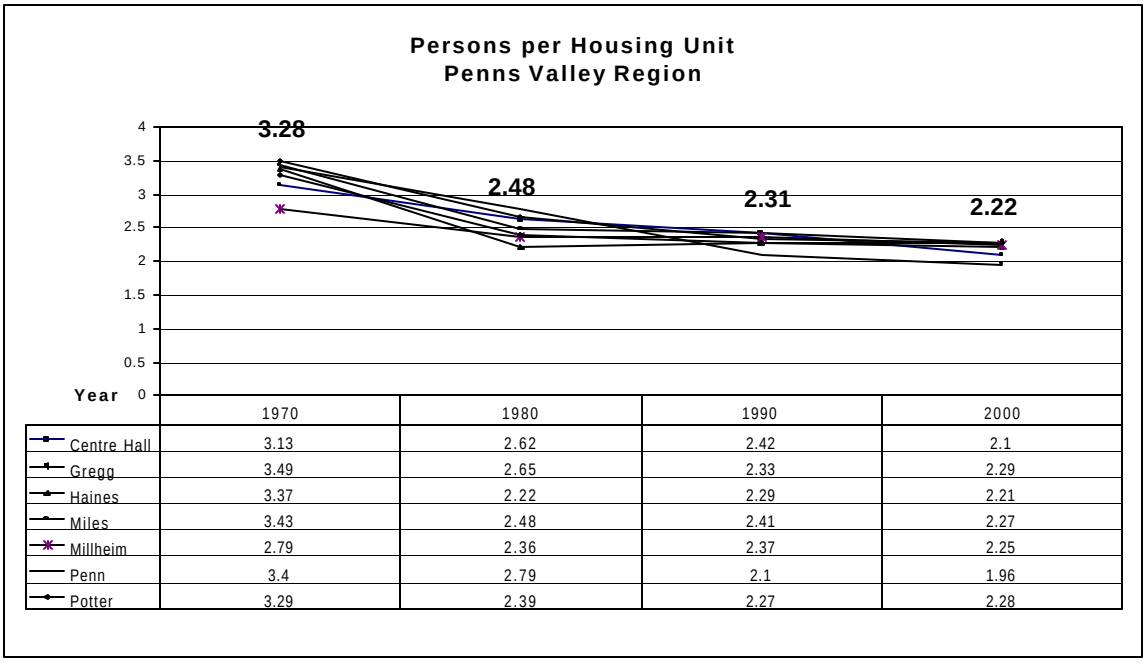
As the above graph reveals, since 1970 the Region has had rates of growth close to that experienced by the entire County. During the 1960s the Region did not share in the boom of development that was occurring elsewhere within the County. However, based upon the more recent trends it would appear that the Region's future will run at a slightly slower rate of growth than that expected throughout the County as a whole. As a rural area it is sound policy to expect less development within the Region and nothing within this Plan would suggest that the Penns Valley Region will depart from serving its fair-share of Centre County's growth and development. To the contrary, the Plan specifically projects such growth and allocates it within the Region in an efficient, logical and environmentally-friendly manner.

B. Historic Housing Growth

In addition to population growth, another important consideration when projecting how fast an area will grow relates to its number of housing units. The following table lists the number of housing units within each municipality since the US Census Bureau began reporting such information in 1970.



Unsurprisingly, the number of housing units increased within the Region. However, the rate of housing growth is dramatically greater than that of population. Between 1970 and 2000, the Region's population grew by just under 30%, while its number of housing units grew by almost 92%. This occurred because fewer people are living together, as family sizes have decreased and more people are living by themselves. This trend is true for each municipality within the Region since 1970. This trend has also occurred nationally for several decades. Another local condition contributes to this trend. The Region contains natural settings and environmental quality that attracts visitors and seasonal residents who construct hunting lodges and fishing cabins. These units are counted by the Census Bureau, but produce no population; this skews the total housing unit figures higher than in places where no such seasonal housing is provided. Also, these seasonal housing units were not counted as part of the total housing units in 1970.

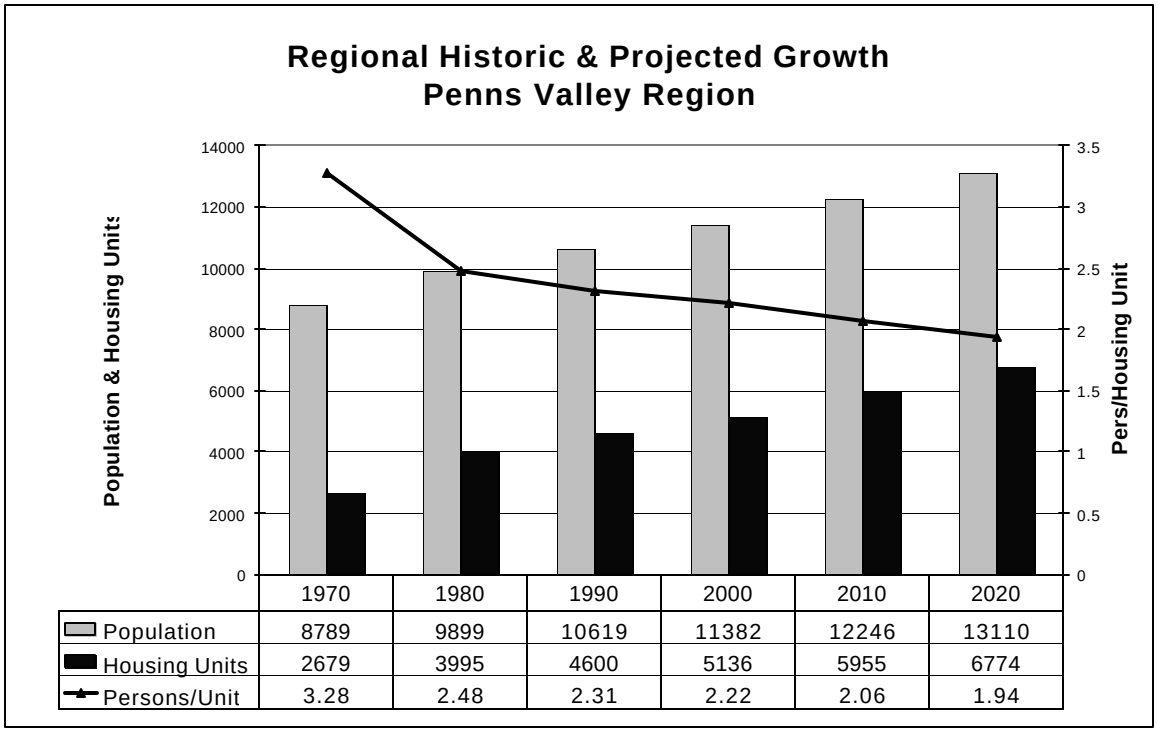


Regionally, each household lost about 1 person between 1970 and 2000. Penn Township had the greatest loss of almost 1.5 persons per unit while Millheim Borough recorded the lowest loss of just over 0.5 persons per unit. It is important that population and housing projections for the Region take into account this trend so that adequate growth area can be assigned for projected new housing units. Also, it was decided to reflect the additional seasonal housing units within these calculations since demand for these units will likely continue in the future and local officials intend to accommodate this limited form of development.

C. Population & Housing Projections

Review of the population and housing trends for the Region over the last few decades reveals a very uniform and steady rate of growth. This suggests that an arithmetic or linear extrapolation should produce reliable predictions of growth for the future if outside influences are not permitted to affect development within the Region. While this technique is considered one of the most basic of projection techniques, it also is one of the most powerful as it considers all of the factors that have affected past growth. For these reasons the linear projections for years 2010 and 2020 will be used to allocate the Region's resources through the balance of this Plan.

As can be seen in the following graph, a "natural" growth curve extends for both the population and housing bars between the historic rate experienced in the past through the projected growth to the year 2020. Similarly, the descending line depicting the reducing average household size also follows a "normal" curve since the large reduction experienced during the 1970s. These traits typify projections that are realistic and reliable. The table below the graph depicts the results of the same projections performed for each of the Region's municipalities.



	1970	1980	1990	2000	2010	2020
Population	8789	9899	10619	11382	12246	13110
Housing Units	2679	3995	4600	5136	5955	6774
Persons/Unit	3.28	2.48	2.31	2.22	2.06	1.94

Municipality	2000	2010	2020
Centre Hall Borough Population	1079	1011	944
Centre Hall Borough Housing	514	549	584
Centre Hall Borough Persons/House	2.10	1.84	1.62
Gregg Township Population	2119	2279	2439
Gregg Township Housing	927	1079	1231
Gregg Township Person/House	2.29	2.11	1.98
Haines Township Population	1479	1589	1700
Haines Township Housing	669	779	890
Haines Township Person/House	2.21	2.04	1.91
Miles Township Population	1573	1689	1806
Miles Township Housing	693	805	917
Miles Township Person/House	2.27	2.10	1.97
Millheim Borough Population	749	709	668
Millheim Borough Housing	333	340	347
Millheim Borough Persons/House	2.25	2.09	1.93
Penn Township Population	1044	1142	1241
Penn Township Housing	533	637	742
Penn Township Person/House	1.96	1.79	1.67
Potter Township Population	3339	3826	4313
Potter Township Housing	1467	1766	2065
Potter Township Person/House	2.28	2.17	2.09

While the above table provides interesting information about how much population and housing growth would occur within each municipality within the Region if current planning policies were retained, this Comprehensive Plan can allocate the growth throughout the Region to best "fit" expressed planning goals. Therefore, this Plan must focus upon the Region-wide projections, as listed below, rather than those presented for each municipality in the above table. In all likelihood, some of the municipalities will be planned for development that exceeds their projected growth, while others will receive less than that projected. The following tabulates the net changes projected within the Region; these will become target figures for allocating resources to meet growth by decade:

Projected Net Changes Per Decade		
Year	**2000 to 2010**	**2000 to 2020**
Population	864	1728
Housing	819	1638
Persons/Unit	-0.16	-0.28

D. Socio-Economic Characteristics - This section will present Census information on a wide array of characteristics of the Region. It is important to note that significant portions of the population within Haines, Miles and Penn Townships are comprised of plain-sect residents. The lifestyles and beliefs of these residents can produce dramatic shifts as reported by various census measures.

Age Profile

Age Group	Centre Hall Boro	Gregg Twp	Haines Twp	Miles Twp	Millheim Boro	Penn Twp	Potter Twp	Region	Centre County
0-5 yrs	58 (5.4%)	146 (6.9%)	100 (6.8%)	153 (9.7%)	47 (6.3%)	77 (7.4%)	204 (6.1%)	785 (6.9%)	4.6%
5-9 yrs	43 (4%)	165 (7.8%)	130 (8.8%)	155 (9.9%)	46 (6.1%)	60 (5.7%)	259 (7.8%)	858 (7.5%)	5.1%
10-14 yrs	45 (4.2%)	160 (7.6%)	130 (8.8%)	137 (8.7%)	53 (7.1%)	75 (7.2%)	253 (7.6%)	853 (7.5%)	5.2%
15-19 yrs	58 (5.4%)	146 (6.9%)	109 (7.4%)	106 (6.7%)	62 (8.3%)	96 (9.2%)	226 (6.8%)	803 (7.1%)	10.0%
20-24 yrs	61 (5.7%)	84 (4%)	65 (4.4%)	89 (5.7%)	23 (3.1%)	52 (5.0%)	130 (3.9%)	504 (4.4%)	19.8%
25-64 yrs	611 (56.6%)	1159 (54.7%)	735 (49.7%)	730 (46.4%)	399 (53.3%)	540 (51.7%)	1877 (56.2%)	6051 (53.2%)	44.8%
65+ yrs	203 (18.8%)	259 (12.2%)	210 (14.2%)	203 (12.9%)	119 (15.9%)	144 (14.3%)	390 (11.7%)	1528 (13.4%)	10.4%
Median Age	43.6	36.7	36.4	33.4	38.1	36.3	38.8	37.5	28.7

Comments: Overall, the Region's population has a median age 8.8 years older than that of Centre County. This comes as no surprise given the effect that the Penn State University has upon the age profile of the County's population. The Region has a suspicious lack of young adults that could suggest a trend towards out-migration. Unsurprisingly both Centre Hall and Millheim Boroughs have the greatest concentration of seniors well above the Regional and Countywide average. Miles Township has an unusually high concentration of children from infants to middle-school ages, well above the Region and County averages although the actual numbers are low due to its rural character. Based upon the enrollment within the local public school, it is believed that most of these children are of plain-sect families. Centre Hall Borough and Potter Township have the largest cohort of working-aged adults. Aside from these traits, the Region has a typical age profile for its composition and location.

Racial Composition & Hispanic/Latino Origin

Race	Centre Hall Boro	Gregg Twp	Haines Twp	Miles Twp	Millheim Boro	Penn Twp	Potter Twp	Region	Centre County
White	1075 (99.6%)	2103 (99.2%)	1464 (99.0%)	1552 (98. 7%)	743 (99.2%)	1025 (98.2%)	3296 (98.7%)	11,258 (98.9%)	91.4%
African American	2 (0.2%)	-	1 (0.1%)	11 (0.7%)	1 (0.1%)	6 (0.6%)	13 (0.4%)	34 (0.3%)	2.6%
Native American	1 (0.1%)	3 (0.1%)	1 (0.1%)	3 (0.2%)	0	0	12 (0.4%)	20 (0.2%)	0.1%
Asian	0	5 (0.2%)	11 (0.7%)	2 (0.1%)	0	8 (0.8%)	7 (0.2%)	33 (0.3%)	4.0%
Pacific Islander	0	5 (0.2%)	0	0	0	1 (0.1%)	3 (0.1%)	9 (0.1%)	0.1%
Other	0	1 (0%)	1 (0.1%)	0	0	1 (0.1%)	7 (0.2%)	10 (0.1%)	0.7%
Bi-racial	0	2 (0.1%)	1 (0.1%)	5 (0.3%)	5 (0.7%)	3 (0.3%)	11 (0.3%)	27 (0. 2%)	1.1%
Hispanic/Latino	0	9 (0.4%)	10 (0.7%)	2 (0.1%)	0	6 (0.6%)	15 (0.4%)	41 (0.4%)	1.7%

Comments: Each of the municipalities and the Region, has far less racial diversity than does Centre County. In total minorities comprise only 1.1 percent of the Region's population as compared with 8.6 percent of the County's makeup. The Region has twice the ratio of Native Americans as Centre County but this still accounts for only 0.2 percent of the Region's population. Residents are of Hispanic/Latino descent, account for only 0.4 percent within the Region about 1/4 that of the entire County.

Gender Profile

Gender	Centre Hall Boro	Gregg Twp	Haines Twp	Miles Twp	Millheim Boro	Penn Twp	Potter Twp	Region	Centre County
Male	529 (49%)	1086 (51.3%)	725 (49%)	763 (48.5%)	363 (48.5%)	531 (50.9%)	1657 (49.6%)	5654 (49.7%)	51.1%
Female	550 (51%)	1033 (48.7%)	754 (51%)	810 (51.5%)	386 (51.5%)	513 (49.1%)	1682 (50.4%)	5728 (50.3%)	48.9%

Comments: Unlike Centre County as a whole, the Region has slightly more females than males.

Education		
Area	**High School Diploma**	**4+ Year @ College**
Centre Hall Borough	88.1%	22.9%
Gregg Township	84.1%	17.8%
Haines Township	77.5%	14.3%
Miles Township	71.7%	14.5%
Millheim Borough	86.8%	11.7%
Penn Township	83.4%	17.3%
Potter Township	86.8%	23.1%
Penns Valley Region	82.8%	18.6%
Centre County	88.2%	36.3%
Pennsylvania	81.9%	22.4%

Comments: Centre County is much about education. It is no wonder that the County enjoys educational attainment rates considerably above the State and National averages. Only Haines and Miles Townships have high school graduation rates below the State averages; this is likely a result of the concentration of plain-sect residents who do attend school through grade 12. However, the proportion of college graduates within the Region is below the State average except in Centre Hall Borough and Potter Township. Unsurprisingly, the Countywide rate of college graduates is among the highest within the State and well above that within the Region.

Income				
Area	**Per Capita**	**Median Family**	**Median Household**	**Persons Below Poverty**
Centre Hall Borough	$23,195	$49,333	$42,143	22 (2.0%)
Gregg Township	$17,504	$44,063	$40,858	125 (5.9%)
Haines Township	$15,993	$41,544	$37,381	236 (16.0%)
Miles Township	$13,180	$36,062	$33,074	235 (15.0%)
Millheim Borough	$19,511	$40,682	$37,000	92 (11.9%)
Penn Township	$15,530	$44,688	$41,544	112 (11.1%)
Potter Township	$21,320	$50,000	$43,556	258 (8.1%)
Penns Valley Region	$18,320	$44,707	$40,054	1080 (9.5%)
Centre County	$18,020	$50,577	$36,165	22,742 (18.8%)

Comments: Per capita income across the Region is slightly above the Countywide average. However, high personal incomes recorded in the two Boroughs and Potter Township counteract the relatively low incomes of the other Townships. Centre Hall Borough and Potter Township are the only municipalities within the Region that have median family incomes close to the Countywide average and the Region as a whole has about $6000 less family income each year than the County. Generally Centre Hall Borough and Potter Township enjoy the highest incomes within the Region, while Miles Township records the lowest income levels. Poverty status statistics for Centre County include many college-enrolled students and therefore are misleading. The Statewide average for persons living in poverty is 11 %; therefore, the Region has fewer people living in poverty than across the State. However, Haines, Miles and Penn Townships and Millheim Borough each have a ratio of persons below the poverty level higher than is typical across the State. Special outreach opportunities and programs should be targeted here to assist these less fortunate individuals and local officials should be mindful of these limited incomes when planning for costly public infrastructure and services.

Employment Status & Commuting						
Area	**Total Labor Force (16 yrs +)**	**Employed**	**Unemployed**	**Carpooled**	**Public Transit**	**Average commute**
Centre Hall Borough	65.7%	63.8%	2.0%	12.8%	0	26 mins.
Gregg Township	70.4%	68.5%	1.9%	15.1%	0.2%	25 mins.
Haines Township	62.8%	61.5%	1.3%	21.3%	0	34 mins.
Miles Township	61.8%	60.4%	1.5%	15.7%	1.1%	34 mins
Millheim Borough	61.3%	59.7%	1.6%	13.1%	1.1%	32 mins.
Penn Township	69.6%	67.2%	2.5%	16.5%	0.8%	28 mins.
Potter Township	66.2%	64.7%	1.5%	17.7%	0	22 mins
Penns Valley Region	66.0%	64.0%	1.9%	17%	0.2%	27 mins
Centre County	60%	56.7%	3.3%	11.6%	3.9%	19.6 mins

Comments: The Region has a higher percentage of workers than does the County who are largely employed. Unemployment is low throughout the Region and in each of the municipalities. Carpooling is relied upon more heavily than is typical throughout the County undoubtedly owing to the lack of public transport options and the longer commuting distances and times due to the Region's remote location.

Civilian Labor Force - All values are expressed as percentages of the overall labor force.									
Occupation	**Centre Hall**	**Gregg**	**Haines**	**Miles**	**Millheim**	**Penn**	**Potter**	**Region**	**County**
Agriculture, forestry, fishing, hunting, mining	1.9	7.5	10	12.8	1.6	5	3	6.1	1.7
Construction	5.8	9.4	9.4	9.2	5.7	10.6	9.9	9	4.8
Manufacturing	15	14	19	15.8	15.3	16	13.2	15	10.6
Wholesale trade	1	2.4	2.2	1.5	1.9	2.3	3.1	2.3	1.3
Retail trade	12.1	8.8	9.9	11.6	16.9	8.1	8.2	9.9	10.5
Transportation, warehousing, utilities	1.5	3.9	3.4	3.6	8.2	6	3.1	3.8	3.1
Information	2	1.1	1.2	2.3	1.4	1.4	1.4	1.5	2.4
Finances, insurance, real estate	2.9	3.5	4	2.7	3.8	3.1	4.9	3.8	4.0
Professional, scientific, management, waste	7.5	5.3	4	4.4	3.8	5.2	9.7	6.4	7.5
Educational, health, social services	30.4	30.2	22.9	21.8	22.3	22.4	27.7	26.1	36.2
Arts, entertainment, recreation, lodging, food	6.3	4.7	6.6	6.9	7.1	6.8	5.9	6.1	10.8
Other services	8.5	5.8	3.6	5.1	7.1	6.6	5.9	5.9	3.7
Public administration	5.1	3.5	3.4	2.6	4.9	6.6	3.9	4.0	3.5

Comments: Like in Centre County as a whole, educational, health and social services represent the largest single sector of employment within the Region. Manufacturing is the second leading employer within the Region at a rate about 1.5 times that of the Countywide average. Retail trade ranks third within the Region and is just below the Countywide average; however, within the two Boroughs retail trade is stronger. Agriculture also provides more employment within the Region, particularly within Haines and Miles Townships. Conversely the Region has fewer residents employed in arts, entertainment, lodging and food service. Each of the Region's Townships have higher concentrations of construction workers who tend to favor rural home sites where housing is more affordable and on-site storage of equipment and supplies can occur; this may suggest the need for rural occupation regulations. Other than these differences the Region exhibits civilian labor force characteristics similar to Countywide averages.

Housing & Household Characteristics									
Other Characteristics	**Centre Hall Boro**	**Gregg Twp**	**Haines Twp**	**Miles Twp**	**Millheim Boro**	**Penn Twp**	**Potter Twp**	**Region**	**Centre County**
Group Quarters	0	0	0	14 (0.9%)	0	50 (4.8%)	117 (3.5%)	181 (1.6%)	10.9%
Family Households	325 (66.2%)	606 (77. 2%)	399 (75.4%)	420 (79.8%)	206 (66.2%)	288 (80.2%)	953 (75.2%)	3197 (74.9%)	57.8%
Rental Units	130 (26.5%)	152 (19.4%)	71 (13.4%)	98 (18.6%)	82 (26.4%)	60 (16.7%)	149 (11.8%)	742 (17.4%)	39.8%
Vacant Units	23 (4.5%)	142 (15.3%)	140 (20.9%)	167 (24.1%)	22 (6.6%)	174 (32.6%)	200 (13.6%)	868 (16.9%)	7.2%
Seasonal Units	4 (0.8%)	39 (4.2%)	30 (4.5%)	48 (6.9%)	4 (1.2%)	46 (8.6%)	116 (7.9%)	287 (5.6%)	2.9%

Comments: As expected the rural character of the Region does not lend itself to group quarter residences (those units where people live in communal or dormitory settings) and the Region's percentage of population within group quarters is minimal. Penn and Potter Townships have the most residents within group quarters but well below the Countywide average. The presence of Penn State University causes the County's group quarter and rental unit figures to be unusually high and its family household figures to be unusually low. The Region has a higher percentage of family households than does Centre County. Both Boroughs have the lowest percentage of family households and the highest rate of rental housing. This suggests that the Boroughs are providing most of the Region's affordable housing stock. The Region has a high housing vacancy rate; however, reflected in this rate are the Region's many seasonal hunting lodges and fishing cabins that skew these results when compared with the normal countywide vacancy rate.

Housing Condition			
Area	**Units Lacking Complete Plumbing**	**Units Lacking Complete Kitchen**	**Built Pre-1940**
Centre Hall Borough	0	1 (0.2%)	201 (39.1%)
Gregg Township	0	0	352 (38%)
Haines Township	29 (5.5%)	36 (6.8%)	311 (46.5%)
Miles Township	4 (0.8%)	6 (1.1%)	326 (47%)
Millheim Borough	0	3 (0.9%)	176 (52.2%)
Penn Township	0	0	185 (35%)
Potter Township	0	7 (0.6%)	308 (21%)
Penns Valley Region	33 (0.6%)	53 (1%)	1859 (36.2%)
Centre County	(0.5%)	(0.5%)	(17.4%)

Comments: 86 Housing Units within the Region are considered to be substandard most of which occur within Haines Township. These findings are consistent with the Township's concentration of "Old-Order-Amish" families who consciously choose to resist modern conveniences that are used by the Census Bureau to measure housing conditions. Centre County has a housing rehabilitation program which could be used to improve local substandard housing, but it is unlikely that such program would be welcomed by these plain-sect residents. Each of the municipalities within the Region has a higher percentage of homes built pre-1940 than that of the County as a whole.

Housing Tenure & Vacancy				
Area	**Owner-occupied Units**	**Owner-occupied Vacancy Rate**	**Renter-occupied Units**	**Renter-occupied Vacancy Rate**
Centre Hall Borough	361 (73.5%)	0.3%	130 (26.5%)	7.1%
Gregg Township	633 (80.6%)	0.8%	152 (19.4%)	1.9%
Haines Township	458 (86.6%)	4.4%	71 (13.4%)	6.6%
Miles Township	428 (81.4%)	1.4%	98 (18.6%)	3%
Millheim Borough	229 (73.6%)	0.9%	82 (26.4%)	7.9%
Penn Township	299 (83.3%)	2.9%	60 (16.7%)	1.6%
Potter Township	1118 (88.2%)	1.5%	149 (11.8%)	2.6%
Penns Valley Region	3526 (82.6%)	1.7%	742 (17.4%)	3.7%
Centre County	(60.2%)	(1.2%)	(39.8%)	(3.7%)

Comments: Homeownership exceeds 80 percent within the Region's Townships and is over 73 percent within both of the Boroughs. These rates greatly exceed those for Centre County. Owner-occupied vacancies vary on either side of the Countywide average again with Haines Township exhibiting the greatest stress followed by Penn Township. Owner-occupied vacancies tend to be less within the Boroughs. As described earlier, vacancy rates are skewed higher than normal because of the Region's large number of hunting lodges and fishing cabins that are measured to be vacant by the Census Bureau. The percentage of rental housing units is low within the Region's Boroughs and even lower within the Townships when compared to Centre County. Rental vacancy rates are higher within the Region's Boroughs but average across the entire Region when compared against Countywide figures.

Housing Costs		
Area	**Average Monthly Rental Costs**	**Average Owner-Occupied Housing Values**
Centre Hall Borough	$510	$105,900
Gregg Township	$468	$93,800
Haines Township	$478	$88,200
Miles Township	$404	$91,100
Millheim Borough	$510	$92,700
Penn Township	$508	$94,000
Potter Township	$481	$120,100
Penns Valley Region	$475	$101,500
Centre County	$565	$114,900

Comments: Given the Region's remote location and rural character it is understandable that its housing stock comes at less expense than other developed areas within Centre County. Monthly rents tend to be slightly higher within the Region's Boroughs than its Townships; however, all are substantially less than those collected across the County. Owner-occupied housing values are also less within the Region except within Potter Township. Haines Township has the most affordable owner-occupied units at about 30 percent below the Countywide average. Miles Township has the most affordable monthly rents at about 40 percent below the Countywide average.

Housing Type					
Area	**Single-family Detached**	**Single-family Attached**	**Two-family**	**Multiple-family**	**Mobile Home**
Centre Hall Borough	389 (75.7%)	12 (2.3%)	47 (9.1%)	60 (11.5%)	6 (1.2%)
Gregg Township	751 (81%)	4 (0.4%)	22 (2.4%)	23 (2.5%)	125 (13.5%)
Haines Township	563 (84.2%)	16 (2.4%)	10 (1.5%)	4 (0.6%)	73 (10.9%)
Miles Township	539 (77.8%)	16 (2.3%)	28 (4%)	19 (2.7%)	89 (12.8%)
Millheim Borough	259 (76.9%)	15 (4.5%)	29 (8.6%)	20 (6%)	14 (4.2%)
Penn Township	431 (81.5%)	6 (1.1%)	2 (0.4%)	2 (0.4%)	86 (16.3%)
Potter Township	1094 (74.6%)	26 (1.8%)	30 (2%)	14 (1%)	303 (20.7%)
Penns Valley Region	4026 (78.4%)	95 (1.8%)	168 (3.3%)	142 (2.8%)	696 (13.6%)
Centre County	(56.7%)	(5.4%)	(3.5%)	(26.7%)	(7.5%)

Comments: As can be seen, the Region exhibits a significant preference towards single-family detached housing. This is not surprising given the Region's larger rural/suburban character when compared with the high-density areas surrounding State College. Nonetheless, the Region must provide for its fair share of a wide range of housing types; therefore, future residential growth areas must seek to attract a more balanced mix of housing including attached and multiple family units. Overall the Region has a large stock of mobile homes that is almost twice the Countywide average in large measure because of the units contained within Potter and Gregg Townships. Each of the Region's Townships contain concentrations of mobile homes exceeding the Countywide average. While this may suggest that the Region has met its fair share of mobile homes, current case law requires municipalities to treat freestanding mobile homes like any other single-family detached dwelling. Therefore any limits imposed upon mobile homes should be limited to development potential within mobile home parks. Also the Region must continue to readily accommodate mobile homes throughout the rural/suburban areas so as not to invite exclusionary zoning challenges.

In order to avoid claims of exclusionary zoning practices and to reflect contemporary housing styles, it is recommended that the Region specifically plan to rely less upon single-family detached units in the future. In many instances municipalities use Countywide averages to project future housing type demands; however, Centre County is different from most counties. Its concentration of student housing creates an existing mix of unit types that would likely be difficult for outlying areas to achieve. Nonetheless, national housing trends suggest greater reliance on more dense/multi-family units and compact detached units. For these reasons it is recommended that the Region allocate future land use to meet the target growth in the following residential categories:

Target Projected New Housing Units by Structural Type					
Year	**Total**	**Target single-family detached**	**Target attached and duplex**	**Total multi-family**	**Mobile Homes**
2000	5136	4026 (78.4%)	263 (5.1%)	142 (2.8%)	696 (13.6%)
2000-2010	+819 = 5955	+ 143 = 4169 (70%)	+332 = 595 (10%)	+ 355 = 597 (10.0%)	+0=696 (11.7%)
2000-2020	+1638 = 6774	+716 = 4742 (70%)	+ 414 = 677 (10%)	+ 537 = 679 (10.0%)	+0=696 (10.3%)

Methods to achieve this mix of future housing are presented in Chapter XI of this Plan.

V. Existing Land Use

For a land use plan to be practical, it must accurately inventory existing land uses and development characteristics. Then, with proper analysis, future land use schemes can reflect reality, and avoid the creation of nonconforming uses when implemented through zoning regulations. To determine existing land uses, two sources were consulted. First, the Centre County Planning Office has prepared a land use GIS map coverage which blends tax parcel record information with land cover features as derived from aerial photograph interpretation. Specifically, tax parcel data is used within "developed" areas while land cover data is used in outlying rural areas. This land cover data can "split" larger properties into several uses. For example, a farm with a house will depict the house as one use, and the farmland as another; this gives a truer picture of uses in outlying rural areas. Conversely, within the Boroughs, the County's tax parcel information was used to determine land use. Here, the tax records list predominate land uses on the property, which is also more accurate than aerial photo interpretation when analyzing a "built" environment. Then, this GIS data was field verified by the County Planning Office staff during 2000. Finally the consultant too verified existing community characteristics via a windshield survey conducted in May, 2004. Regionally, the existing land use pattern is very rural with small and densely-developed Boroughs and Villages. Individual land uses are depicted on the ***Existing Land Use Map.*** The following tabulates land area devoted to various existing land use categories as identified within the County's GIS data.

Aerial photo of Potters Mill

Existing Land Use Acreage by Municipality*

Category	Centre Hall	Gregg	Haines	Miles	Millheim	Penn	Potter	Region
Forest	31	17,133	28,713	28,703	159	11,534	18,612	**104,885 (66%)**
Agriculture	15	9,262	6,786	8,050	387	4,804	13,862	**43,166 (27%)**
Residential	159	1,067	444	440	152	414	1,431	**4,107 (2.6%)**
Commercial	15	47	48	16	12	20	181	**339 (0.2%)**
Industrial	2	11	10	11	0	0	34	**68 (0.04%)**
Mined Land	0	16	73	0	0	0	24	**113 (0.07%)**
Reclaimed Land	0	0	0	32	0	0	0	**32 (0.02%)**
Public/Semi	86	29	24	21	17	33	162	**372 (0.2%)**
Recreation	20	88	9	57	10	150	300	**634 (0.4%)**
Transportation	51	338	232	243	39	133	639	**1,675 (1.06%)**
Water	0	68	70	52	6	106	100	**402 (0.25%)**
Utility	0	3	0	0	1	2	5	**11 (0%)**
Vacant Land	23	454	233	230	39	205	1,061	**2,245 (1.42%)**
Vacant Building	0	2	0	0	2	0	1	**5 (0%)**
Communication	0	0	0	0	0	0	1	**1 (0%)**

*Acreages are approximate

Forest/Conservation

Typical cabin in Rothrock State Forest

As expected, the steep side slopes and foothills of Seven, Brush and Nittany Mountains are largely wooded, with scattered rural residences and cabins on large lots. Egg Hill and the creek-sides of Penns and portions of Sinking Creek are also largely wooded which undoubtedly contribute to their excellent surface water quality.

The Pennsylvania Department of Conservation and Natural Resources (DCNR) owns and maintains Bald Eagle State Forest within all of the Region's Townships. Most of this forest resides on Seven Mountains along the Region's southeastern and eastern borders. However, a separate area is also located on Mount Nittany at the junction of Gregg and Potter Townships and extends into the adjoining Nittany Valley Region.

Rothrock State Forest is located on the west side of US Route 322 in southwest Potter Township among seven separate areas within Centre, Huntingdon and Mifflin Counties.

The Pennsylvania State Game Commission owns and operates State Gameland No. 295 located in the northwest corner of Miles Township. These areas offer settings for public hunting of small and large game during designated hunting seasons as well as year-round hiking and nature enjoyment.

Several significant developments are located here also. First is the Seven Mountain Scout Camp located in southern Potter Township. This rugged facility is consistent with its wooded setting and compliments an adjoining rural subdivision to the north. Both of these areas appear to rely upon nearby US route 322 for vehicular access.

Many of the lots in this area are uncharacteristically deep when compared with other residences; this suggests that these lots may be used to harvest firewood and for hunting cabins. None of these areas exhibit the use of flag-lotting techniques with joint-use driveways. However, some of these lots are located away from any public road and appear land-locked; these lots would not be permitted under today's subdivision regulations. Most of the roads throughout these areas have rugged dirt surfaces and are not designed for daily commuting use. Some have signs warning that snow removal does not occur.

This land use category includes brushland, evergreen, hardwood, mixed, and wetland forests. Some 104,885 acres, or over 66 percent of the Region's total land area is within woodlands. All of the Region's townships share in a large measure of woodlands. New changes to the Municipalities Planning Code require each municipality to permit forestry uses by right within each zone; more discussion regarding this topic is presented in Chapter XI of this Plan.

Agriculture

Farming is the second largest category of land use within the Region. About 43,166 acres comprise this use or about 27 percent of the total land area. Each of the Region's five Townships have abundant farmlands within the low-lying limestone valleys. The Brush valley and the western reaches of the Region (Potter Township) have a level and continuous fertile

landscape, while the Penns Valley tends to have a “lumpy” relief pattern of noncontiguous prime soils. While it appears that all of the Townships have "plain-sect" farmers they are more concentrated in the eastern reaches of the Region in Haines and Miles Townships and particularly along PA Route 192 in the Brush Valley. Considerable livestock farming exists throughout the Region with dairy cows, horses, elk, mules and sheep. An exotic wildlife refuge is also located adjoining Penns Valley Cave in Gregg Township.

Cows pasturing along Pine Creek

Crop farming is also a principal activity with alfalfa, corn, hay, green beans, soy beans and trees. All farming operations appear to be family farms with the exception of the Penn Nursery which is a State-run facility located straddling US Route 322 in southern Potter Township on the north side of Seven Mountains. Often, large pastures create a bucolic setting throughout the two valleys. The Region appears devoid of large-scale concentrated feeding animal operations and commercial produce operations.

Widespread use of farm occupations occurs and these accessory businesses are generally depicted on the Existing Land Use Map along with their related residences as "split" land uses upon the larger farm parcels. As can be seen in the following aerial photograph, farms are generally well kept and maintain wooded hedgerows along significant features (e.g. property lines and streams).

Prime agricultural soils in Potter Township – Photo provided by Centre County Planning Office

Water

The Penns Valley Region's landscape is strongly influenced by its water features. It's watersheds and creeks and streams are often of high quality and recreational, economic and scenic value. Water features comprise about 402 acres, and extend throughout the Region.

In upland areas, frequent streams and creeks exhibit an angular drainage pattern and quickly convey waters to the valleys below. In the limestone valleys however, fewer drainageways exhibit a dendritic and karst drainage pattern with sinkholes and closed depressions.

Colyer lake is the largest single water body in western Potter Township. This PA Fish & Boat Commission facility offers two boat ramps and picnic facilities and is a popular local fishing and bird-watching destination. As seen in the following photo, the water level was very low during the land use field inspection.

Colyer Lake boat ramp

The second largest water body is Poe lake in southern Penn Township. This 25-acre lake anchors activity within the Poe Valley State Park amid the Bald Eagle State Forest. A variety of environmental recreation and educational offerings are found here.

Another reservoir is located on the west side of US Route 322 near the Penn Nursery to provide water for that operation. The Penns Cave site also has a small dam across Penns Creek to regulate the height of water flowing through the cave about 1/4 mile downstream.

Aside from these larger water bodies and the numerous creeks and streams, the Region's karst and porous valley topography does not produce abundant surface water lakes and ponds. However, when the surface features are removed, like in a quarry, then underlying materials can collect standing water that would have otherwise been buried below the fertile farmlands and fractured upper levels of bedrock.

Recreation

Some 634 acres have been identified as recreation areas. These include many of those park sites specifically inventoried in Chapter VII plus several private facilities like golf courses, driving ranges, campgrounds, shooting ranges and a wildlife preserve. Many of the Region's larger regional recreation resources are located amid lands that are mapped in this Chapter as Forest \ Conservation. Others are included in lands that have been identified as public/semi-public.

The Seven Mountain Scout Camp is the largest recreation site depicted within the Region. This 207 - acre facility is owned and operated by the Juniata Valley Council of the Boy Scouts of America and offers week-long summer tent- camping programs for scouts and webloes and five cabins for winter camping. It also has a 10-acre lake and a swimming pool. The camp is located on the east side of US Route 322 in southern Potter Township.

7 Mountain Scout Camp sign

The second largest site is the area immediately surrounding Poe lake in the Poe Valley State Park. This 620-acre park is owned and operated by the Pennsylvania Department of Conservation and Natural Resources and extends into adjoining Mifflin County. The park offers boating, fishing, and seasonal swimming in its 25-acre lake, along with camping, picnicking, hiking, cross-country skiing, snowmobiling and ATV-ing into the adjoining

Bald Eagle State Forest. Poe Valley State Park is located in a remote setting that can only be reached via dirt roads in southern Penn Township. Similarly the third largest recreation site surrounds the eastern half of Colyer lake in southwest Potter Township. Here picnicking, boating and fishing are offered on this State-owned facility adjoining Rothrock State Forest. The Penns Valley School District campus straddling PA

Panoramic view of the athletic fields of the Penns Valley High School

Route 45 in northwest Penn Township is also one of the Region's largest recreation sites. Here are the Penns Valley Elementary, Middle and High Schools with all of their related playgrounds, athletic fields, tracks and courts. More detailed information about these and the Region's other local parks and playgrounds can be found in Chapter VII of this Plan. Finally, the Woodward Sports Camp is located just west of the Village of Woodward on PA Route 45 in, central Haines Township. This large private facility offers impressive facilities for skating, skate boarding gymnastics, tennis and swimming activities along with lodging and cafeteria services. The photo of the adjoining skateboard course reveals competition-level apparatuses.

Skateboard course in Woodward Sports Camp

Public / Semi-Public

Within the Region public and nonprofit uses comprise 372 acres or about 0.2 percent of the total land area. It is important to note that the larger State Forest and Gamelands are not listed within this category as they are principally in forest cover. This category focuses upon smaller community-based facilities and many numerous governmental uses such as post offices, firehouses, EMS stations, police stations, nursing care campuses, libraries, clubhouses for civic and fraternal organizations, public schools, municipal offices and maintenance sheds, churches, cemeteries, and rectories. The largest of these uses is the fairgrounds of the Centre County Grange Fair and Encampment grounds which straddles the southwest border of Centre Hall Borough with Potter Township. With more than 150,000 visitors each year, this unique agricultural fair attracts more than 10,000 temporary residents who "set-up-camp" in late August each summer to celebrate the rich agricultural heritage of the county with competitions, contests, exhibits, sales and festival of food entertainment and amusements. It is the only tenting fair in the nation.

A view of the 2004 Centre County Grange Encampment and Fair

Residential

About 4107 acres of land within the Region contain residential uses; this represents about 2.6 percent of the total land area. Given the way the County records its tax parcel data, this category includes all of the detached non-farm and farm dwellings within the Region plus the attached row homes and duplexes. Densities within this category range from rural up to 10 dwelling units per acre. Clearly, most of the homes located within the rural landscape are vastly different than those located within the older neighborhoods of the Boroughs and Villages.

The GIS data presents categories of residential land use based upon the number of units contained on a particular site. While this information is helpful, it must be refined to reflect the character of the neighborhood along with individual home sites. For this reason, after the following general description of rural residences, the balance of this Chapter will convert to a descrption of the character of the Region's various important development settings (e.g. Boroughs, Villages and highways) rather than a listing of the various land use categories. In this way the reader will better visualize the "sense-of-place" within each of the important settings of the Region.

Rural Residential - Rural home sites are generally larger than one-acre and often have a deep driveway; however, at the crossroad villages and along the Region's major local roads homes can be located close together and nearer the road. In short, development within the rural areas varies widely except within several of the more recent subdivisions that have more uniform layouts and appearances. Each township has considerable scattered strip" roadside housing throughout its rural landscape. This rural housing also contains many home and rural occupations that provide for close-to-home employment opportunities. Generally, rural homes are well-kept aside from an occasional mini-junkyard and the outdoor storage associated with a contractor's rural occupation. Curbs, sidewalks and streetlights are not provided here.

Centre Hall Borough

Centre Hall Borough functioned as market for the many agricultural products yielded from the rich Brush and Penns Valleys for many years. Its strategic location at several major intersections helped it thrive as a center for commerce and industry. The Borough straddles PA Route 144 generally situated between the Region's two most important east-west local highways (PA Route 45 and 192).

Pennsylvania Avenue in Centre Hall Borough

The Borough exhibits a very traditional grid street and block arrangement for a distance of about one block on either side of Pennsylvania Avenue (Route 144). For much of this setting to the south of Locust Street the streetscape has a 22-foot-wide cartway, paved shoulders with parallel parking, uniform building setbacks about 5-feet from the pavement with sidewalks and shade trees. Here historic homes are separated by an occasional church or small business, office or civic use that has adapted a residence for its purposes. Two-family dwellings are common but single family homes predominate. Buildings are between 2½ and 3 stories tall. Rear yard alleys with outbuildings are common and setback about 5 feet from the alleyway.

At the southern end of Pennsylvania Avenue is a node of more intensive development which exhibits industrial traits. A large fencing company, feed mill and commercial fuel depot are tucked along the west side of the road adjoining the former railroad line which was abandoned in the 1970s. Across the street is the Whistle-Stop Restaurant which occupies the former train station.

Pennsylvania Avenue north of Locust Street and including the intersection with Church Street (PA Route 192) shares many of the same characteristics found elsewhere. However, this is the "downtown" area of the Borough where more commercial, high-density residential and civic use are concentrated. Most of this area's commerce is located on the west side of the street and include a vacant storefront, pizza restaurant, mini-grocer, flower shop, insurance office, barber/salon, bank with drive-thru, home furnshings and gift shop, auto parts store and the Centre Hall Firehouse. Across the street are several two-family dwellings, a former hotel that was converted into apartments, a modern auto parts store and garage, art studio and a pool store. Here the street is wider with angled-head-in parking spaces, painted crosswalks and sidewalks. Signs tend to be attached and at a pedestrian scale but the area could benefit from some shade trees. Most of the businesses are located in traditional storefronts or converted residences but one parts store/garage is out of character with the Borough context.

A view of "downtown Centre Hall Borough

Converted hotel in "downtown" Centre Hall Borough

Within close proximity of the commercial core are several other important properties and uses. The Borough Hall, the Centre Hall Potter Public Library and the Centre Hall Potter Elementary School and playground are located about one block west of the downtown area. Similarly the Centre Hall Post Office and Lions Club park are located about one block east of downtown. An open parking lot is also located along Miles Alley just behind several two-family residences on the east side of Pennsylvania Avenue.

Away from Pennsylvania Avenue the Borough streets have less of a traditional feel. These primarily single-family detached neighborhoods have lots ranging in size from 9,000 to 15,000 square feet with width between 60 and 100 feet. Front yard setbacks range from 20 to 50 feet enabling the off-street parking of vehicles upon individual driveways. Streets are still 22 feet wide but sidewalks are generally absent and on-street parking is permitted. Side yard setbacks are variable between 5 and 15 feet. These neighborhoods are well kept and pleasant.

Gregg Township

Gregg Township Is situated at the western end of Brush Mountain where the Brush Valley converges into greater Penns Valley. Also prominent here is Egg Hill which rises up and bisects the lowlands of Penns Valley for about half of the width of the Township. Despite these significant topographic features that are largely wooded, Gregg Township has the second highest concentration of farmland, behind Potter Township, within the Region. Along PA Route 192 in the Brush Valley is a narrow but lush band of farmlands with few rural residences. In this vicinity are the Penns Cave facilities including the cave, wildlife preserve, and related concessions and picnic facilities and lodging. Also nearby is the Penns Cave Airport.

On the south side of Brush Mountain is the small rural crossroad of Green Grove, presumably named after its local church. This is a small gathering of rural residences.

PA Route 45 Corridor

The PA Route 45 corridor has developed with one coordinated node of local business and several other scattered businesses. Most notably is the Penns Valley Building Supply. This large commercial/industrial site contains a large building supply yard, mini-warehouses, a carpet store, fencing contractor, accountant office and the Township office. These uses are arranged in a compact design that share site features including access drives, signs, off-street parking and loading and stormwater management facilities. Nearby are several freestanding uses including a new bank with drive-thru lanes, two churches and a motorcycle saddlebag manufacturer. Further east along the highway are several churches, a wallpaper store, a Nascar store, auto repair shop, the Fire Company Fairgrounds, several bed & breakfasts, auto repair shops, a hair salon and a sporting goods store.

Penns Valley Building Supply along PA Route 45

Village of Spring Mills

The largest concentration of development within Gregg Township occurs in the Village of Spring Mills. This Village is located at the confluence of Sinking and Penns Creek and the eastern edge of Egg Hill. Historically this village contained a sawmill and a gristmill. The influence that the creeks had on the arrangement of roads and buildings is evident today as the Village has a very irregular but organic design. The historic designation of Spring Mills as a resort destination along the former Lewisburg and Tyrone Railroad has left behind several historic structures that create a “quaint” small town charm within the retail core of the Village. Here are located an old fashioned general store and a historic hotel/tavern which sit close to the road and were obviously designed before society’s reliance upon the automobile. Other nearby businesses include a pizza shop, hair salon, gunsmith, iron works and small meat plant.

The mills have been replaced by a clean and well-managed pharmaceutical company that straddles Water Street on the south side of Penns Creek. This facility presents little evidence of

its purpose and little impact upon its surroundings.

Another prominent feature of the Village is the Gregg Township Elementary School and playground along School Street. This modern facility dominates the view of the west side of town and offers a small playground in the front yard. It also adjoins a larger baseball field that is located on the way out of town along Sinking Creek Road. The Gregg Township Fire Company is located along the north end of the Village with convenient access to roads in all directions; however, this site seems cramped and certain turning movements would require traffic control. An historic church also enjoys a central and visible location in the heart of the Village.

Residential streetscapes are characterized by uniform building styles and arrangements. Lots are typically 65 feet wide or slightly wider and usually a minimum of 200 feet deep. Front yard setbacks are also uniform at 10 feet from the cartway. Off-street parking is generally provided in the side or rear yard, although driveway connections occur within the front yard as no alleys exist here. The street has no curbs or sidewalks and on-street parking is not possible at most locations. Residential home occupations exist but are limited and the homes along the western end of Long Street suffer from proximity with adjoining industry.

A view along Long Street in Spring Mills

Haines Township

Haines Township forms the Region's southeast border. It includes the easternmost reaches of the Penns Valley where the Brush, Sand and Winkelblech Mountains converge and the Bald Eagle State Forest begins. Accordingly, Haines Township has the greatest concentration of woodlands with about 28,713 acres or 78 percent of the Township. Farmlands account for 19 percent of the Township area, leaving only 3 percent of the land area or all other uses. Haines Township extends from and includes the Village of Aaronsburg on the west, through the Village of Woodward, both of which will be described in detail. The Con-Stone quarry is the Region's largest active quarry with about 73 acres and is located within several hundred feet of the southeast corner of the Village of Aaronsburg. This operation is setback about 1800 feet and visually screened via a natural berm from PA Route 45.

Con-Stone Quarry, the Region's largest

Haines Township is the home of the Woodward Cave along Pine Creek Road with its related campground and concessions. Along PA Route 45 is the Woodward Sports Complex, a modern and high-quality private recreation campus oriented to outdoor sports and activities. Other scattered small businesses are often connected with a rural residence. This Township also has

a high incidence of plain-sect family farms with livestock. The farming landscape has a “lumpy” relief with short rises and holes of prime soils as compared with the more level farmlands found in Brush Valley and western reaches of the Region.

Village of Aaronsburg

Located along PA Route 45 in western Haines Township, the Village of Aaronsburg is the largest unincorporated community within the Penns Valley Region. It’s size and scale rivals the slightly larger Centre Hall and Millheim Boroughs. Aaronsburg is reported to be the oldest town within Centre County and located at the geographic center of Pennsylvania. The Village also contains a National Register Historic District.

Wide streetscape in the Village of Aaronsburg

The Village was originally laid out with very uniform block dimensions of 260 feet wide and 200 feet deep. This block pattern which have withstood later development trends and the existing land use pattern appears to follow the original design. Considerable development potential remains within the grid pattern of the streets, many of which are paper streets. In most cases residences have split such blocks into four lots of about 60 feet wide by the 200 foot block depth. Detached homes predominate with a few two-family conversions.

Within the center of the Village along PA Route 45 the street widens from its typical 35-50 foot width to about 130 feet. Here the road has wide paved and grassed shoulders with sidewalks and generous shade trees with broad canopies. Despite this wide streetscape buildings have rather uniform and minimal front yard setbacks just beyond the right-of-way. Numerous driveway cuts offer room to park vehicles in the wide shoulders but most properties have side and or rear yard parking spaces. Alleys are very common and many properties have one and two-story outbuildings that are located adjacent to the cartways. Backyard garden plots are also frequent owing to the spacious depth of these lots.

Rear yard garden plots

Several large cemeteries dominate the north end of town and the Township Office and post office are located one block south of Aaron Square straddling Rachels Way. Other non residential uses within the Village include small cabin lodging, Aaronsburg Community Building and Library, paper and floral shop, car detailing shop, vacant market with gas pump island, antique shop, heating contractor, woodworking shop, upholstery shop, bed & breakfasts, artisan and gift shops and the Aaronsburg Library and Museum. On the east end of town are several highway oriented businesses that do not exhibit village characteristics; these include, a restaurant, laundromat, miniwarehouses, truck service garage and a welding shop.

Village of Woodward

The Village of Woodward sets at the "edge of the forest" along PA Route 45 at the Woodward Narrows as the Haines Township landscape changes from rugged terrain to an agricultural valley. This small crossroad has its origins to the Woodward Inn that has been in continuous operation for the past 190 years. The Inn and its accompanying restaurant anchor the commercial crossroad with an historic storefront, post office and the Washington Camp Building.

Commercial crossroad in Woodward Village

The Village has an historic character despite a few suburban-style intrusions. The streetscape is tidy owing to its curbs and driveway cuts. There are no sidewalks here, and off-street parking is located in the side and rear yards for residences because of shallow front yards (10 feet). Parking for nonresidential uses occurs in the front yard due larger front yard setbacks (35-50 feet).

Tidy streetscape in Woodward Village

A short system of alleys offer back yard access to garages for residences fronting on the north side of PA Route 45; garages are setback 10 feet from the alley cartway. The alley also affords access to a church located to the rear of these homes. A long cemetery is also located on the western edge of the village along the north side of PA Route 45.

The Village likely benefits from patrons of nearby attractions such as the Woodward Cave and the Woodward Sport Camp; although its character alone warrants success as a restful and relaxing destination.

Miles Township

Miles Township is the largest municipality within the Region and the most rural. The long and narrow shape follows PA Route 192 as it spans the narrow but fertile Brush Valley between Brush and Nittany Mountains. About 28,703 acres contain woodland and 8050 are farmland; this leaves only 1102 acres for all other land uses. Rural residents include a high concentration of plain-sect farming families. Also farm and rural occupations are common. Very sparsely developed farmlands and forests are normal but the Township possesses two distinct small villages.

The Brush Valley in Miles Township

Village of Madisonburg

The Village of Madisonburg is stripped-out for a depth of about one block on either side of PA Route 445 north if its intersection with PA Route 192. Here is a quiet and quaint community consisting of primarily single-family detached dwellings. Several former duplexes have been converted for single-family use. The town consists of 11 uniform blocks that are about 200 feet deep and 250 feet wide on the west side of Madisonburg Road but are fewer and wider on the east side. Typically, these blocks have been divided into lots with widths ranging between 60 and 120 feet, producing lot sizes of 12,000 to 24,000 square feet.

PA Route 445 in Madisonburg

The town's streetscape is also uniform with a 24-foot wide cartway and 10-foot wide grass shoulders. Sidewalks line the west side of the street only and off-street parking is limited to the side and rear yards because of the shallow front yard setbacks of about 5 feet. Alleys offer rear yard vehicular access to most of the blocks except those located north of Shaffertown Road on the east side of Madisonburg Road.

Several two-family dwellings are located along the north side PA Route 192 and what appears to have been a former motel now houses attached apartments and a head trauma care facility located on the south side of the highway. Nonresidential uses include a craft shop (closed), several churches and cemeteries, a post office, buggy shop, civic club, shoe and saddle shop, bullet caster and a greenhouse.

Village of Rebersburg

The larger Village in Miles Township is Rebersburg. Again, this Village is generally about one block deep along either side of PA Route 192 (Main Street). The blocks are 190 feet deep and 270 feet wide. Typically, these blocks have been divided into four or five lots with widths ranging between 50 and 160 feet, but mostly about 60 feet. The streetscape here is tight with a 22-foot wide cartway and variable but narrow shoulders. Sidewalks are located on the north side of the highway and for short stretches on the south side as well. This Village is a National Register Historic District.

Village of Rebersburg Streetscape

Within the most central area of the Village is found a wide variety of uses including offices, auto filling station, electronics store, hair salon, senior center, 2 country stores, barber shop, auto repair, a bank and bed & breakfast. Except for the gas station located at the square, most of these businesses have adapted old historic structures for their purposes.

Blended here are also single family, several two-family and one multiple family dwelling. Behind these mixed use blocks are larger public uses including the Rebersburg Elementary

Panoramic view of the Rebersburg Fire Company Fairgrounds

School and Playground, churches and cemeteries, the Township garage, and the Rebersburg Fire Company and Fairgrounds. Also located across Broad Street from the Fire Company is an industrial fuel distribution plant and tank.

On the west end of town (west of 5th Street) the configuration of lots is more rural. Here widths are increased and front yard depths are a minimum of 50 feet. These setbacks offer room to park vehicles in driveways between the house and the adjoining road. Side yard setbacks are also larger at about 15 to 20 feet. There are no sidewalks here, nor alleys.

On the extreme west edge of town is a small grouping of businesses. Most notably is a large wooden pallet manufacturer that is located several hundred feet south of PA Route 192. Sharing the same access drive is a small appliance repair shop and a soap store. Given the Region's land use goals, this existing configuration foretells of future business and industry design and access arrangement as it minimizes the need for multiple access drive cuts and conflicting traffic movements along the busy highways.

A short distance south of Rebersburg along Town Lane is a small village of rural residences fronting on Smullton Back Road. A trout hatchery is also located along Elk Creek and Smullton Road.

Aerial photo of existing pallet manufacturing plant that shares access with other uses in a perpendicular arrangement from the adjoining highway on the west-end of Rebersburg.

Millheim Borough

Millheim Borough, along with the Village of Aaronsburg is located at the approximate geographic center of the Region and Pennsylvania. The Borough's location affords convenient regional road access in all directions unlike most areas within the Penns Valley where the mountains prevent north-south movements. The Borough's origin is linked with various industries that relied upon water power from Elk Creek. Over the last two centuries, numerous

industries were located here and in the 1870s, the Borough had become the commercial and industrial center of the Penns Valley Region with 12 businesses and 13 industries. Today the industries are gone as the nation's economy has shifted to more of a service, technology and information base. Nonetheless, Millheim offers the greatest diversity of commerce within the Penns Valley Region and accomplishes this in a very compact manner. This Borough contains a National Register Historic District.

Millheim Borough CBD

The town has a very tightly-knit Central Business District (CBD) that straddles PA Route 45 for about 3 blocks between Plum Street and the Elk Creek. Here can be found the following businesses:

Commercial uses on south side of Main Street

- Laundromat;
- Massage therapist;
- Antique shops;
- Beauty salon;
- Law office;
- Tavern;
- Bank;
- Post office;
- Insurance office;
- Nightclub (adult-entertainment);
- Pizza restaurant; and,
- Consignment shop.

Commercial uses on north side of Main Street

- Veterinary clinic;
- Chiropractor office;
- Funeral parlor;
- Hotel and restaurant;
- Plumbing & electric supply;
- Barber;
- Beauty salon;
- Surveying/Engineering firm;
- PA Assoc. of Sustainable Agriculture;
- Art gallery
- Café;
- Flooring shop;
- Sporting goods store; and,
- Penns Valley Meat Market.

Highway oriented commerce on the west end of Millheim Borough

CBD Fountain Park and parking lot

Within this confined area most properties have multiple uses with commerce at grade and apartments located on the upper floors of the 2½-story buildings. As can be seen in the above photo graph, buildings employ build-to-lines that extend right up to the 4-foot-wide sidewalks and, in the case of the Millheim Hotel, extend over top of it on the upper floors. This creates a very nostalgic atmosphere that serves the town well. On-street parking and loading are used

and limited to 2-hours without meters. Banners and street lights add to the charm. Finally, a very nice passive park and parking lot offer visual and thermal relief within the CBD for pedestrians and patrons. Many of the characteristics of "downtown" Millheim have become the new vogue as communities attempt to distinguish themselves from more contemporary modern shopping areas that function but lack aesthetic appeal and fail to invite tourism.

Then on either end of town are two small nodes of commerce that are more highway oriented and designed. These uses have typical contemporary design features with large front yard setbacks that offer off-street parking and loading, many freestanding signs that compete for driver attention, large paved areas and utilitarian building designs. Some properties could benefit from curbs with defined access drives and ornamental landscaping and screening. Nonetheless, these uses provide valuable services in settings that are better suited to motorist patrons than pedestrians, unlike in the CBD. In these two areas can be found the following businesses:

Highway commercial uses on east end of town

- Vacant storefront;
- 2 beauty shops;
- Variety store;
- Auto repair;
- Bed & breakfast;
- Insurance agent;
- Auto parts store; and,
- Miniwarehouses.

Highway commercial uses on west end of town*

- Mini-market with gas pumps;
- Car wash;
- Civic club;
- Farmers market;
- Investment consultant;
- Consulting firm;
- Hardware store;
- Dollar store;
- Restaurant (vacant); and,
- Bowling alley.

*Technically some of these uses are within adjoining Penn Township but function as part of the Millheim area.

The Borough has two distinct residential patterns. First within the central areas along Main (west of High Street) and Penn Streets housing styles are traditional with small front yard setbacks, and in the CBD, front build-to-lines. Diverse housing styles create higher density than is typical throughout the Region. Buildings have their longest axes perpendicular to the street. Here streets have curbs and sidewalks with driveway cuts that access parking in the side or rear yards. Rear yard alleys with garages offer further opportunities for parking storage and the conduct of accessory businesses. Streetscapes are narrow and truck-turning movements are difficult at several key intersections. As can be seen in the adjoining photograph, these characteristics create pleasant and quaint small-town charm when not impacted by the considerable traffic that passes by regularly.

Traditional housing streetscape along Penn Street in Millheim Borough.

On the edges of town, newer housing styles reflect a hybrid of traditional street patterns and alleys with more suburban property characteristics. Larger setbacks offer the opportunity for parking in the front yard; although many uses still have side or rear yard parking and garages on rear alleys. Buildings and lots are wider and larger side yards create a more spacious appearance when viewed from the adjoining street. Also, the Borough has several freestanding businesses and home occupations on the north and south ends of town including a chiropractor, outreach center, day care, computer consultant, bus mechanic, antique shop, kennel, landscape contractor, sign maker and small engine repair shop.

Millheim has several important large public uses. The Borough Office is located across from the Town's easternmost commercial node with a large park to its rear. The Millheim Fire Company has a large complex located one block north of the square and also adjoining a park. Finally the Region's only public pool is located "up the hill and outback" of the Borough square in a rural area of the Borough. Surprisingly the Borough has considerable land devoted to agricultural and woodland uses.

Panoramic view of the Millheim Community Pool property.

Penn Township

Penn Township is located in the southcentral area of the Region. The Township completely surrounds Millheim Borough. The Township generally extends from atop Brush Mountain south across the Penns Valley and to the top of Long Mountain. Penn Township is the smallest of the Region and about 66 percent composed of woodlands and 28 percent in farmland. Like in other areas of the Penns Valley, the farmlands have a rolling topography with discontiguous prime soils. Fortunately, the few rural housing subdivisions have been developed upon lands that appear to be less productive. Poe Valley and Poe Paddy State Parks are located in the southern wooded section of the Township.

A stretch of Penns Creek south of Coburn.

Along PA Route 45 are several important nodes of development. First as mentioned above there are several small highway–oriented businesses that straddle PA Route 45 just west of Millheim Borough. These include a hardware store, dollar store, restaurant, bowling alley, bank, grocery store and a fencing contractor. These larger-scale businesses obviously provide valuable services to those within the Region.

Further west near the Gregg Township border is the Penns Valley School District Campus. Here are the Penns Valley Elementary, Middle and High Schools. This suburban style campus offers spacious setting for the schools' various athletic fields and courts plus abundant off-street parking. Just east of the Elementary School are the Penns Valley Region Pharmacy and Medical Center. The juxtaposition of the schools and these facilities offer convenience for assistance during medical emergencies plus routine care visits. These

Penns Valley Region Pharmacy and Medical Center located across from the High School.

facilities have suburban highway-oriented designs.

Village of Coburn

Located near the convergence of Elk, Penns and Pine Creeks is the Village of Coburn in southern Penn Township. This community feels like "the last outpost" before one heads into the wilderness of the Seven Mountains range to the south. In the past this town served as a distribution center for goods travelling by raft and later by rail. Because of its proximity with the forest, it featured a brisk lumbering trade; however, today the nearby sawmill appears to have been recently abandoned. Today industry appears linked with a feed and fertilized mill and a small tourist trade for visitors to the nearby State Parks. Commerce is limited to a country store, bed & breakfast, fly tackle shop and antiques shop.

Coburn's streetscape

The Village has a tightly-knit streetscape with traditional and modest housing styles that often include covered front porches. This helps to create an intimate and friendly atmosphere that invites social interaction. On-street parking helps to reduce the width of the street and keep vehicle speeds slow. Narrow sidewalks also compliment the "neighborly" quality of this community. One vacant and another active church are here along with a post office and an unusually large park for this size community.

Potter Township

Potter Township forms the Region's western border and includes the convergence of the Brush and Penns Valleys. Here the valley is much broader and flatter with an abundance of good and contiguous farmland. Like each of the Region's Townships, Potter has considerable acreage devoted to woodland and farmland accounting for almost 90 percent of the land area. However, Potter Township has experienced considerable suburban development pressure that has begun to find footing and, unless held in-check, could threaten the Township's otherwise rural character. There are many more scattered home sites throughout this Township than is found elsewhere within the Region, and even a few suburban subdivisions.

Potter Township completely surrounds Centre Hall Borough and is bisected by several important regional highways that have influenced its existing land use pattern.

PA Route 45 Corridor

PA Route 45 links much of the Region with the State College area on the west and the Lewisburg area on the east. It also affords access among many of the Region's municipalities. Naturally, this road has, in recent years, become an attractive corridor along which to develop strip highway commercial land uses. Within Potter Township, these uses have been very effectively confined to a short stretch that is located just south of Centre Hall Borough and near the intersection with PA Route 144. It is obvious that local zoning has played a vital role in keeping this development from spreading along the highway. Here can be found the following commercial uses straddling the highway.

Uses on the north side of PA Route 45 (E to W)

- Saddle store;
- Livestock auction;
- Lawn furniture occupation;
- Printer;
- District Justice Office;
- Bank;
- Insurance Office;
- Antiques shop;
- Drugstore;
- Physician's office;
- Hardware and craft shop;
- Auto sales lot;
- Pre-fab building contractor; and,
- Mini-warehouses.

Uses on the south side of PA Route 45 (E to W)

- Candle shop;
- VFW cluhouse;
- Ice cream shop;
- Convenience store with gas pumps and fast-food;
- Township recycling center;
- Custom metal shop;
- Bank;
- Grocery outlet;
- Car wash;
- Tractor sales & service;
- Herb shop;
- Pizza restaurant;
- Offices;
- Building systems;
- Dentist office; Diner; and, travel office.

Uses along this highway exhibit modern design standards with wide front, side and rear yards, landscape strips, stormwater management facilities, freestanding signs, off-street parking and loading spaces, dumpsters and site lighting. There appears to be considerable residual development potential among these uses with increased lot coverage.

Highway commercial uses along
PA Route 45 in Potter Township

Just east of this commercial strip is the Township's principal industrial development. Here are located the Snyders and Hanover Food Plant and warehouses. Again, these uses exhibit modern designs with the same characteristics described above for commercial uses.

The Hanover & Snyder Foods Plant and Warehouse in along PA Route 45 in Potter Township

Also along PA Route 45 are several important residential uses. First is a small suburban style neighborhood tucked south of the Grange Fairgrounds which is partially within Centre Hall Borough and Potter Township. About 35 homes rely upon Jacks Lane for sole vehicular access

to PA Route 45. Lots are 100 feet wide and 150 feet deep with 50-foot front, 15-foot side and 50-foot rear yard setbacks. The street is 22 feet wide with no curbs and sidewalks and parking is provided in front loaded driveways and attached garages.

A few hundred feet west is the Region's largest mobile home park. Centre Hall Associates contains over 100 mobile homes. Streets are 16 feet wide with no curbs and sidewalks. Front yards setbacks are 10 feet while sides and rear setbacks are 15 and 5 feet, respectively. Off-street parking occurs as parallel spaces in the front yard and pull-in spaces in the side yards. The Blackhawk Mobile Home Park is also located on the south side of PA Route 192 west of Centre Hall Borough.

Centre Hall Associates Mobile Home Park

Near the western edge of the Township is located The Meadows Psychiatric Center. This convalescent facility has a spacious and quiet campus-like environment that is physically separated from other developed neighborhoods.

The Meadows Psychiatric Center

Across PA Route 45 is a large complex of building supply contractors and masonry supplies. Again, these uses exhibit modern design.

Country Club Park is a suburban subdivision that is located on the north side of PA Route 45. Here are ranch and split-level homes with 30-foot front and 15-foot side yards. The streetscape has curbs but no sidewalks.

Country Club Park

US Route 322 Corridor

Although only currently impacting the Region with Potter Township, future alignments of this road could have dramatic consequences within the Penns Valley Region. Today, the developments linked to this highway have been effectively managed. Rampant strip development does not exist. Instead, confined nodes have been partially developed at two locations. The intersection of PA Route 144 and US Route 322 is known as Potters Mill. This prominent crossroad is heavily traveled along both corridors and has historically been an important junction for commerce. Today uses are limited within this vicinity to an historic hotel and

Rear vew of Dotterer Equipment along PA Route 322

restaurant, general store with gas pumps, auto service garage, gunsmith shop, VFW clubhouse, furniture and rug shop, mower shop, pet care and a bus service garage. Uses at the actual intersection have varied and traditional designs as compared with the more recent uses that have modern designs.

A few miles to the west is another grouping of uses. Here are a large motorcycle shop, mini warehouses, tractor dealer, auto accessories office, furniture sales, building contractor, landscape contractor, millworking shop, antique shop and a large sports complex. These uses are more recent with modern designs but the outdoor storage areas lack screening.

Pipeline Developments

In planning for future land uses, and calculating acreage needed to accommodate projected growth, it is important to know the location and types of developments within the Region that have been approved for development, but have not yet been fully developed. This information will also ensure that future planned uses are consistent or compatible with those already approved for construction. The following lists, by municipality, that development which has been submitted for approval and not yet constructed:

PIPELINE DEVELOPMENT PROJECTS		
Development Name	**Map No.**	**Uses Yet To Be Built**
Centre Hall Borough		
Centre County Grange Fair & Encampment	1	2 pole buildings (12,400 sq. ft.)
Centre Hall - Potter Elementary School	2	64,850 sq. ft.
Centre County Grange Fair & Encampment	3	1 new pole building & 1 expansion (11,700 sq. ft.)
Gregg Township		
Rueben Fisher	4	1020 sq ft Amish school
Linda Marquardt Phase 2	5	1 single-family detached
John Zubler	6	4 single-family detached
Jeffry Long	7	1 single-family detached
Scott Long	8	5040 sq ft accessory warehouse
New Hope Lutheran Church	9	10,000 sq ft church
Bryan Fultz	10	1 single-family detached
Anthony Mark	11	2 single-family detached
Dave Smith	12	2 offices and 3 storage buildings
John Houser	13	2 single-family detached
Charles Brown	14	2-family dwelling
Mary Bullock	15	2 single-family detached
Stonefield Subdivision	16	27 single-family detached & church
Locust Grove Subdivision	17	12 single-family detached
Byron Brown	18	5 single-family detached
John Houser	19	1single-family detached
Haines Township		
David Zook	20	1 single family detached
Donn Subdivision	21	2 single family detached
Rufus Zook	22	1 single family detached
Harold Ard	23	2 single family detached
Samuel Yoder	24	2 single family detached
Freda Auman	25	1 single family detached
Poormans Welding	26	10,000 sg. ft. commercial building addition
Perspective Homes, Inc.	27	Model home/office
Matthew Allen	28	2 single family detached

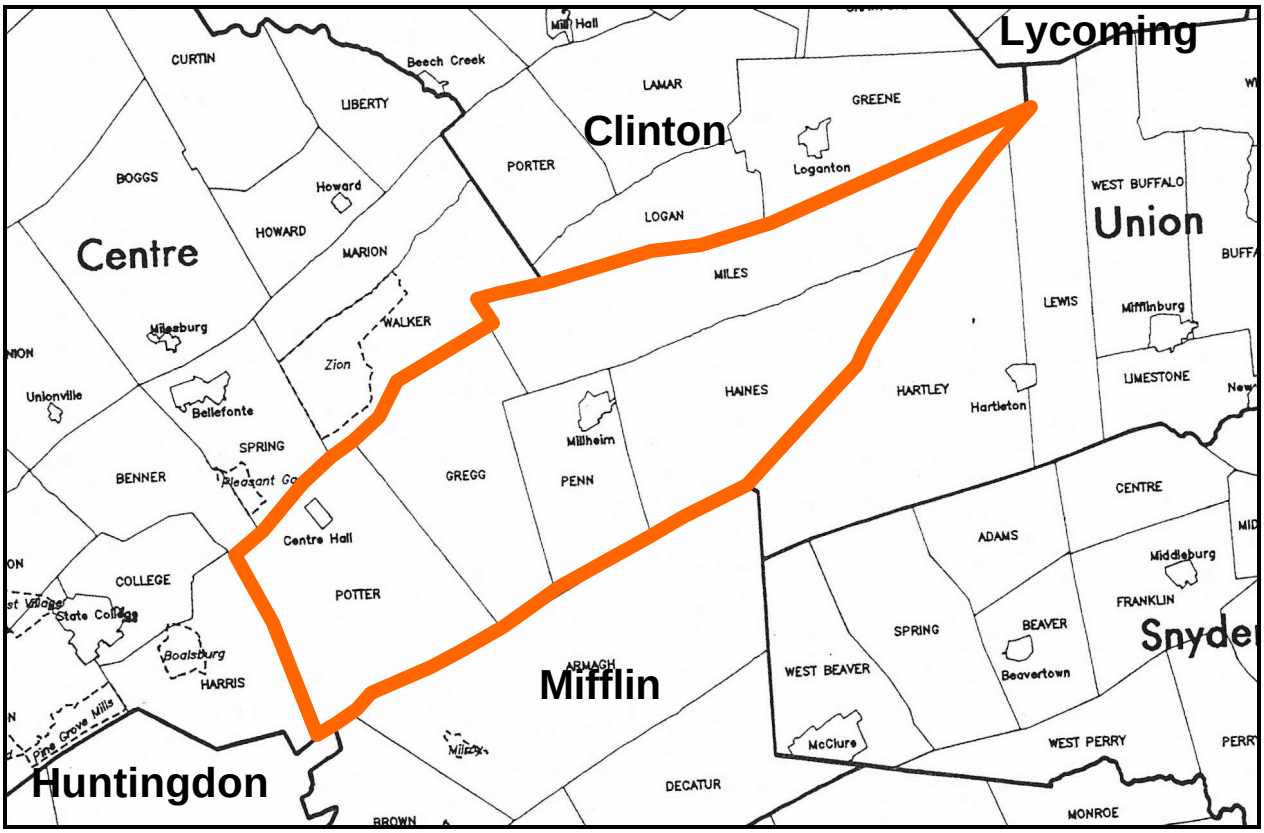
PIPELINE DEVELOPMENT PROJECTS		
Development Name	**Map No.**	**Uses Yet To Be Built**
W. Jere McCarthy	29	1 single family detached
Abner Fisher	30	1 single family detached
Edmond Isabelle	31	1 single family detached
Alphie Hostetter	32	3 single family detached
Gary Parsons	33	4 single family detached
Samuel Yoder	34	1 single family detached
Martha Futhey	35	1 single family detached
Gary Parsons	36	1 single family detached
Samuel Yoder	37	2 single family detached
Daniel Hostetter	38	1280 sq. ft. harness shop
Miles Township – None		
Benuel Lapp	39	1 single-family detached
Elvin Swarey	40	1200 sq ft Amish School
Malon Young	41	2nd residence
Krislund Camp & Conference Center	42	784 sq ft staff center and storage
Terry Wance	43	1 lot open space – agricultural use
David Esh	44	1 single-family detached
Daniel & Suvilla	45	2nd residence
David Bierly	46	1 single-family detached
Miles Township Elementary School	47	5908 sq ft school expansion
Solomon, Stephen & Trudy Subd.	48	1 single-family detached
John Beiler	49	1 single-family detached
Krislund Camp & Conference Center	50	3000 sq ft addition
Dale Corl	51	1 single-family detached
Emmanuel Zook	52	1 single-family detached
Stoltfus Storage Sheds	53	1176 sq ft shop expansion
Ricky Homan	54	2 single-family detached - 1 lot open space
Abner King	55	1 single-family detached
Regan Harter	56	7 single-family detached
Dale Corl	57	1 single-family detached - 1 lot open space
Jeffrey Stover	58	1 single-family detached
Millheim Borough		
Mensch Estates	59	16 single family detached
Penn Township		
Jesse Burkholder	60	28500 sq ft commercial & 1 single family detached
Hodge Farm	61	2 single-family detached
Lewis Rearick	62	11 single-family detached
Tice	63	1 single-family detached
Penns Valley High School	64	5000 sq ft accessory building
Haas, Glunt, Sealy, Ciarrocchi Subd.	65	2 single-family detached – 1 lot open space
Penns Valley Elementary School	66	59,000 sq ft addition
Barbara Fine	67	1 single-family detached
Jacob Stoltzfus	68	1 single-family detached
Lewis Rearick	69	1 single-family detached
Mifflinburg Bank & Trust Co.	70	2602 sq ft bank
Omar King	71	1 single-family detached
David Bierly	72	5 single-family detached
Shreckengast Subd.	73	1 single-family detached
James Confer	74	3 single-family detached
Lewis Rearick	75	2 single-family detached
Danny Smith	76	1 single-family detached – 1 lot open space
James Fetteroff	77	2 lots open space
Potter Township		
Decker Valley Estates	78	8 single family detached
Bonetti	79	8 single family detached
M. Rishel	80	Lot-add-on plan

PIPELINE DEVELOPMENT PROJECTS		
Development Name	**Map No.**	**Uses Yet To Be Built**
Hanover Foods	81	2400 sq. ft. industrial expansion
Smith – Pletcher	82	2500 sq. ft. American Legion expansion
Mountain View Estates	83	Unknown
Ashford Manor	84	35 singe family detached
Kathy Confer	85	Unknown
State College Baseball Club	86	Baseball fields
Centre Foods Enterprises	87	7 single family detached
No. 1 Cycle Center	88	Unknown
Mark Traband	89	2 farm worker mobile homes
Anne VanderVeldon	90	3 single family detached
Emery Yost	91	3 single family detached
Thelma Brooks Estate	92	5 single family detached

The above information is depicted on the Existing Land Use.

VI. Adjacent & Regional Planning

The preparation of any comprehensive plan must always consider and, if possible, complement the planning policies in effect in adjoining communities. The highest level of consideration could include a cooperative planning effort of several adjoining municipalities, such as that of this Regional study. At a minimum such effort should seek to coordinate land use activities across municipal boundaries to assure compatibility and function. This Chapter presents this analysis and findings of general consistency with the Centre County Comprehensive Plan for the Region.



The Region's boundaries are a combination of man-made and natural features. The Region sets at a convergence of several adjoining Counties. Along the northern boundary the Region abuts Greene and Logan Townships in adjoining Clinton County and Benner, Spring and Walker Townships also in Centre County. To the southeast are Hartley and Lewis Townships in adjoining Union County. South of the Region are Armagh and Brown Townships in adjoining Mifflin County and Jackson Township in adjoining Huntingdon County. To the west is Harris Township in Centre County. As can be seen, many adjoining areas too recognize the rural/natural features of the Region. The following is a brief summary of those land uses planned for each municipality bordering the Region.

A. Municipalities Adjoining the Region

Benner, Spring & Walker Township (Centre County) – Adjoining Gregg, Miles and Potter Townships along the Region's northwestern border is the Nittany Valley Region. This Region, like Penns Valley is in the process of preparing its new Comprehensive Plan. The Draft Future Land Use Plan depicts the entire area adjoining the Penns Valley Region as within the Conservation Zone. This designation coincides with the severely constrained areas associated with the northern face of Mount Nittany which is unsuitable for intensive development. The Conservation Zone anticipates a very rural development pattern with densities of 1 unit per 3 to 5 acres. Here limited occupations would be permitted and all uses would be subject to siting standards that would respect the environmental integrity of the area.

Greene and Logan Township (Clinton County) – Adjoining Miles Township along the Region's northeastern border are Greene and Logan Townships in Clinton County. These Townships have no comprehensive plan but instead rely upon the Clinton County Comprehensive Plan and County Zoning Ordinance. The Clinton County Comprehensive Plan was adopted on December 12, 1992. The Future Land Use Map of the Plan depicts the southern boundary adjoining Miles Township as a combination of State Gameland, State Forest Land and Rural Residential. The State Gameland is in the vicinity of Fishing Creek and is described as vital to the continued attraction of hunters and fishermen. These areas are likely to remain in State ownership for the future.

The State Forest Land is the single largest category of land use within Clinton County occupying vast woodlands and steep slopes that must be preserved for ecological, environmental and economic reasons. These areas may grow through periodic acquisitions by the State. Most of this category adjoins the eastern half of Miles Township.

Much of the western half of Miles Township adjoins land planned for Rural Residential use in Logan Township. The plan describes these areas as allowing for the continuation of the rural/agricultural character already found here. Single family detached dwellings on minimum one-acre lots are suggested with possible clustering around environmentally sensitive features.

Hartley and Lewis Townships (Union County) – Adjoining Haines and Miles Townships along the Region's southeastern border are Hartley and Lewis Townships in Union County. These Townships' respective zoning ordinances were used to glean the land use intentions and planning policies. Nearly all of the land adjoining in Union County is part of the State's Bald Eagle State Forest. It is noted that the former Laurelton Center, which has been operated as an institution for many years has been rezoned to "Resort" by Hartley Township. The Commonwealth of Pennsylvania is in the process of negotiating and finalizing a sale of this approximately 272 acre property to a private developer. The site is about eight miles east of Woodward Camp.

The extreme eastern corner of the Penns Valley Region adjoins Lewis Township's Forest Preservation District. Here very restricted uses each require a minimum lot area of 20 acres and recorded deed restrictions reflecting the relative lack of public infrastructure and public services.

The larger Hartley Township's zoning is Public Land Preservation district. This zone restricts use of publicly owned land to seasonal uses, state gamelands and similar public uses. Here a minimum lot size of 11 acres is required.

Armagh and Brown Townships (Mifflin County) – Adjoining Gregg, Haines, Penn and Potter Townships along the Region's southern boundary are Armagh and to a lesser extent, Brown Townships in Mifflin County. These Townships have no comprehensive plan but instead rely upon the Mifflin County Comprehensive Plan. *Paths and Bridges to the 21st Century*, the Mifflin County Comprehensive Plan, was adopted on December 21, 2000. The Future Land Use Map of the Plan depicts the entire northern boundary of the County adjoining the Penns Valley Region within its Natural Resource Areas category. Page 12-3 of the Plan describes the purpose of these to "delineate those areas unsuitable for development and to protect the County's environmentally sensitive resources." These include steep slopes, floodplains, wetlands, surface and groundwater resources, scenic vistas and public lands.

Jackson Township (Huntingdon Township) - A very small area of southwestern Potter Township adjoins Jackson Township in Huntingdon County. The Township has neither a comprehensive plan or a zoning ordinance; however, the County adopted its comprehensive plan on July 11, 2000. This small area within Jackson Township is depicted as Public Open Space owing to its part of the Rothrock State Forest on the Future Land Use Plan.

Harris Township (Centre County) – The western border of Potter Township and the Region adjoins Harris Township within the Centre Region. This Township participated in the Centre Region Comprehensive Plan that was adopted in June, 2000. The Future Land Use Plan identifies four different land use categories abutting the Penns Valley Region. First, about half of the common southern border is within the designation for Rothrock State Forest. This category reflects the intent to preserve the publicly-owned forest characterized by extensive steep slopes, wetlands and thick forest cover. The northern half is largely shown as Agricultural Lands relying upon effective agricultural zoning, and preservation easements. Two neighborhoods of Residential are located along the south sides of Route 45 and 322, both of which are located beyond the Plan's "Regional Growth Boundary" and are presumably a reflection of existing use rather than a plan for development. The very northern tip of the Township's northeastern border with Potter Township is also shown as part of the Rockview Correctional Institution.

B. Centre County Comprehensive Plan

The Centre County Planning Office (CCPO) is in the midst of a several-year comprehensive planning process for the entire County. This important project is being conducted by staff to devise a deliberate and meaningful future for the County. Presently the staff is working diligently on the plan but no specific land use scheme has been devised for the Penns Valley Region, or other areas of the County. CCPO staff hopes to complete their future land use plan in 2005 after other functional background studies have been finished.

Fortunately, the County's draft goals for its Comprehensive Plan very closely align with the goals expressed by local officials for the Penns Valley Region. Hence it is very likely that the Region's future land use scheme will closely reflect the recommendations advanced by Centre County. If such County scheme is finished prior to adoption of the Penns Valley Region Comprehensive Plan, additional analysis will be provided.

In addition this Plan employs much Geographic Information System (GIS) data that has been compiled and refined by the Centre County Planning Office. Therefore, the existing data used in this Plan and the new data created will be in a format that can be readily used and updated as part of the County' GIS database.

Finally, the staff of the Centre County Planning Office has been directly involved in the preparation of this Plan by providing information, reviewing draft text and maps and offering guidance through meeting discourse. All of these characteristics of this planning process should help to keep the results of this Penns Valley Region's Comprehensive Plan congruous with the County's overall planning program and policies.

C. Pennsylvania Agricultural Security Area

Act 43 of the Commonwealth of Pennsylvania was passed in 1981 to allow municipalities to establish Agricultural Security Areas (ASA) to promote more permanent and viable farming operations over the long run by strengthening the farming community's sense of security in land use and right to farm. Individual landowners petition the Township to create an ASA. Each parcel must be at least 10 acres in size and the entire ASA must be at least 250 acres. By establishing an ASA, farmers who want to farm benefit as follows:

1. The Township Supervisors agree to support agriculture by not passing local ordinances that restrict normal farming operations or structures;

2. The condemnation of farmland by a government in the agricultural security area must first be approved by the State Agricultural Lands Condemnation Approval Board to determine if alternative sites are available for condemnation;

3. The farmland preservation options offered by the Centre County Agricultural Land Preservation Board are available to qualified farm owners in an agricultural security area. For example, only a farm owner in an agricultural security area may be eligible to receive cash for permanently preserving the farm with a conservation easement; and,

4. Hazardous waste and low-level radioactive waste disposal areas cannot be sited.

Each landowner decides if they want to participate in the program. The farms that make up the 250-acre minimum do not have to be adjacent to one another but do have to be in the same Township. The agricultural security area does not stop development nor restrict farmers in any way; only Township zoning laws regulate what land can be developed.

The following tabulates areas currently within Agricultural Security Areas of the Region which have been depicted on the Adjacent and Regional Planning Map:

Municipality	Acres in Agricultural Security Area
Gregg Township	5,121
Haines Township	4,291
Miles Township	7,337
Penn Township	4,596
Potter Township	11,576
Region-wide	32,921

D. Pennsylvania Agricultural Easement Purchase Program

In 1988, the State of Pennsylvania established an Agricultural Easement Purchase program (3 P.S. 914.1 et. seq.) pursuant to which the State purchases agricultural conservation easements to permanently insure that land remains in agricultural use. Each county establishes a point system to prioritize applications. Over the past 16 years, Centre County has contributed $998,055 towards the purchase of farmland development rights. This contribution has leveraged $5,988,560, $345,600 and $91,616 in State, Federal and private funding sources, respectively. In 2003 Centre County's allocation of $111,088 has leveraged another $560,695 in State funds.

To date the agency has preserved 27 farms covering more than 4,705 acres. Within the Region 4 farms within Potter Township have been awarded paid farmland conservation easements totaling some 712 acres. It would appear that Centre County has targeted its paid easement program within areas that are encountering increased development pressure to maximize smart growth management strategies and prevent rampant sprawl. Potter Township has begun to allocate about $20,000 each year towards the preservation of local farms. This local money should continue to leverage the County's funds and enable continued paid compensation for the Township's farmers who are willing to preserve their farms.

As can be seen, some preservation tools have been applied within the Region to protect farmland. Despite this involvement, many farmers still don't understand these various programs. Public awareness and understanding appears to be gradual among the farmers. Therefore, ***it is recommended that the Region conduct a special meeting during the winter months of each year. This Farmland Preservation Summit should bring together local officials and farmers with "experts" from the various agencies responsible for administration of the preservation programs.*** There, township officials can invite farmers to sign-up, farmers can get the information that they need and local experts can gauge support/participation under each program.

It is important that these meetings be held at locations that are conveniently accessible to "plain-sect" farmers who have limited mobility during the winter-weather months when farmers have less work. Also, it may be necessary to meet "around-the-kitchen-table" with plain-sect leaders, if they are unwilling to participate in a public meeting setting. Finally, farmers should be sent notecard invitations to these meetings so that they are sure to know about it.

VII. Public Facilities

A. Schools

A high quality education is a widely-held objective for most of our society. Historically, public, private and parochial schools, including plain-sect schools, have forecast short-term future demands for school facilities, enabling them to program additional building expansion, construction, consolidations, and closures to meet forecasted demands. School facilities planning can have a direct effect on, as well as be affected by, the land use activities within an area. For instance, new or expanded schools may generate increased nearby residential development, and school closures may contribute to the de-population of communities. At the same time, long-range municipal land use planning may designate new growth areas at some distance from existing or planned school facilities. All of these issues underlie the importance of coordinating school district and municipal comprehensive planning processes to assure that existing and future schools and planned community growth occur hand-in-hand.

The Penns Valley Region is served by the Penns Valley Area School District. A handful of plain-sect schools are also scattered throughout the Region. The Penns Valley Area School District is governed by a 9-member School Board whose members serve 4-year terms. The Public Facilities Map, illustrates the location of the Region's public school sites. The remainder of this section will focus upon conditions at the public schools within the Region.

In addition to the normal academic curriculums offered by public schools across the State, the Penns Valley Area School District offers:

- A comprehensive program and services for gifted and disabled students;
- A full-day kindergarten program; and,
- A complete program of extra curricular and sports offerings.

Furthermore, the Central Pennsylvania Institute of Science and Technology offers 19 vocational programs to students of the District. These programs are offered as “half-day” curriculums over two to three years and located in nearby Spring Township.

Beginning in the 2005-2006 school year the School District employs the following grade format:

Public School Grade Format	
Elementary	K-4
Intermediate	5-6
Middle	7-8
Secondary	9-12

The following tabulates conditions at each of the School District's five school sites:

Summary of Penns Valley Area School District Facilities							
School Name	**Year Built**	**Renovation Dates**	**Site Size (acres)**	**Rated Structural Condition**	**Grades Housed**	**Rated Capacity**	**2004-2005 Enrollment**
Centre Hall – Potter Elementary	2005	New	15.4	New	K-4	550	312
Gregg Township Elementary	1926	'37, '61, 96	3.2	Good	K–4	195	152
Miles Township Elementary	1927	1961 & 2004	6.8	Excellent	K-4	175	79
Penns Valley Elementary	1973	2005	61.9	Excellent	K-4	340	263
Penns Valley Intermediate	2005	New	61.9	New	5-6	390	NA
Penns Valley Area Junior & Senior High	1954	'67, 96	30.7	Good	7-12	1,214	832

Source: School District

The Penns Valley Area School District has the same boundaries as the Penns Valley Region; therefore, all of the schools are located within the Region. Each elementary school is located at a separate location although the Penns Valley Elementary School is directly across PA Route 45 from the Junior and Senior High School campus located in northwestern Penn Township.

Geographically, the District offers elementary schools that reach-out into the Region. Four separate Elementary Schools serve the Region through grade six. Presently each elementary school serves all elementary school grades; however, an ongoing 52,000 square foot expansion of the Penns Valley Elementary School will change this in the fall of 2005. At that time, the newly constructed building on the Penns Valley Intermediate School will be used for grades 5 and 6 and serve students from across the entire District. Therefore, each of the elementary schools will then only serve grades K-4.

The Centre Hall – Potter Elementary School is located along the west side of North Hoffer Street across from the western end of Locust Street. This location is well integrated within the Borough and offers convenient pedestrian access to nearby neighborhoods of the Borough. Today, the school is being renovated. This new school will have increased capacity and provide an excellent building with modern facilities and capabilities. This School generally serves students from Centre Hall Borough and Potter Township; although the District is currently undertaking a redistricting process that could make minor adjustments to service boundaries.

Centre Hall – Potter Elementary School

Second, the Gregg Township Elementary School has a prominent location along the west side of School Road in the center of Spring Mills Village. This old school has undergone three renovations and is currently rated in good condition by District Officials. The site is rather small but adjoins a large open space owned by a church. This site can offer convenient walking access to the homes within the Village of Spring Mills, but relies heavily upon bussing from areas beyond the Village. This school has a rated capacity of 340 students and a current enrollment of 263.

Gregg Township Elementary School

The Penns Valley Elementary School is located on the south side of PA Route 45 in northwest Penn Township. This large site currently houses grades K-6 in the existing building with a rated capacity of 400 students that was built in 1973 and is rated in good condition. However, a large ongoing project will add 52,000 square feet in an attached building that will house grades 5 and 6 district-wide beginning in September, 2005. This new intermediate school offers the advantages of flexible grouping, special interest projects, world languages curriculum, enrichment programs, clubs and extra-curricular activities, enhanced instruction through team planning and customized professional development, equalized class size, more peer and group interaction, science labs, larger spaces for active learning, increased computer instruction, increased choral and instrumental opportunities, more efficient use of itinerant staff and smoother transition to seventh grade. Then the existing building will be used for grades K-4. The rural location of this school along PA Route 45 prevents pedestrian access by the elementary-aged students. This school sets opposite the High School campus across PA Route 45.

Penns Valley Elementary School

Miles Township too has an Elementary School located on the southeast side of Town Lane and South Alley in the Village of Rebersburg. Here the 6.8-acre site houses a school built in 1927 and renovated in 1961 and again in 2004; this facility is described as in excellent condition by District officials. This Village-based school serves students from the eastern reaches of the Region; although the District is currently undertaking a redistricting process that could make minor adjustments to service boundaries. This school has a rated capacity of 175 students and a current enrollment of 79.

Miles Township Elementary School

The Penns Valley Area Junior and Senior High School is located on the north side of PA Route 45 in northwest Penn Township. This school was built in 1954 and renovated twice in 1967 and in 1996. Its condition is described as good by District Officials. This school serves grades 7 – 12. The High School campus contains 30.7 acres of which about 17 acres are devoted to outdoor recreation facilities. The school building has a rated capacity of 1,214 as compared with its current enrollment of 817 students.

Penns Valley Area Junior and Senior High School

The following lists the residual capacity of the public schools that serve the Region:

Residual Capacity of Schools Serving Region			
School	**Rated Capacity**	**2003-2004 Enrollment**	**Residual Capacity**
Centre Hall – Potter Elementary	550	312	238
Gregg Township Elementary	195	152	43
Miles Township Elementary	175	79	96
Penns Valley Elementary	340	263	77
Penns Valley Intermediate	390	NA	NA
Junior & Senior High	1,214	817	397
		Total Residual Capacity	**851**

In the year 2000, the number of school-aged children within the Region totaled about 2,353 or 20.7% of the total population. Of these about 70 percent attended public school. Assuming a similar future ratio, the following tabulates the number of new school-aged students that are projected based upon population growth:

Year	Total Population	Total Children Ages 5-18	Total Children Attending Public School (Net additions since year 2000)
2000	11,382	2353	1646
2010	12,246	2535 (+182)	1774 (+128)
2020	13,110	2713 (+360)	1900 (+254)

As can be seen by comparing the total residual capacity listed for all of the Schools within the District (851) with the projected growth assigned to ages 5 -18, the District appears to have sufficient overall capacity to accommodate proposed growth over the life of this plan. Following completion of the ongoing construction projects the residual capacity of the schools will be further increased. For example, all of the 5th and 6th graders who currently attend each of the elementary schools will be served by the new Penns Valley Intermedeiate School. This will yield immediate additional capacity at each of the elementary schools. Hence, District Officials are confident that they can meet the demands of limited growth that is forecast for the Region within the foreseeable future.

However, actual use of space within respective buildings can vary widely and reduce the effective capacity of any particular school site. ***For this reason it is recommended that the Penns Valley Area School District closely monitor growth within the Region so as to proactively plan for facility expansion well in advance of actual demand for space***. The School District could benefit from an improved process of residential development review. By learning of proposed developments early, the District can better prepare for needed school expansion and bus routing.

Subdivision and land development application requirements should be revised so that adequate and timely notification to the School District is assured. Similarly, the School District should allocate manpower and resources so as to properly respond to such applications and provide meaningful feedback to the municipalities and their School Board.

Next, the District offers physical education and a variety of competitive interscholastic athletic programs. In addition, intramural recreation programs for the students are conducted "after-school." Local officials acknowledge the School District's past contributions to the availability of parks and recreation facilities and programs within the Region to the benefit of all residents and municipalities. This represents savings in the amount of millions of dollars to local municipalities who would otherwise need to fulfill this need.

But it sounds as though there is room for improvement. Both local and School District Officials believe that more can, and should, be accomplished. A regional system of parks and programs that fully integrates public school district resources provides the greatest amenity along with the best return on investment. Often impediments to such a fully-integrated system revolve around questions concerning programming priority use of such facilities, liability and maintenance responsibilities. The resolution of these complex issues can appear daunting among educators and local officials without proper expert guidance.

To enhance these offerings and "work-out-the-details" it is recommended that the Region and School District create a new Regional Recreation Board (RRB). This RRB should include at least two voting members from each municipality (one elected official and another local recreation expert) and the School District who have demonstrated interest in parks and recreation.

One of the first assignments of the RRB should be to prepare and submit an application to PA DCNR for a 50% matching grant from the Keystone Recreation, Park and Conservation

Fund to prepare a Regional Comprehensive Park, Recreation and Open Space Plan. With all of the municipalities and the school district represented, this plan is likely to be funded. This Plan could cost about $60,000, half of which would be the responsibility of the Region to fund. The comprehensive methodology of these plans would fine-tune the way in which parks and recreation facilities and programs would be best managed on a cooperative regional basis. In the end, efficiencies of service and duplication avoidance more than offset the cost of these plans. The Region should take full advantage of this funding mechanism, and clearly establish mutually-beneficial recreation policies, practices and facilities. More detailed information on parks and recreation is contained as follows.

B. Parks and Recreation

The planning for both passive and active recreation opportunities is an important component of any comprehensive planning effort. Recreation planning seeks to determine the level of demand for recreation facilities and programs, and where needed parks and recreation facilities should be located. Finally, certain widely-used procedures for the acquisition of parklands via dedication/fee-in-lieu thereof subdivision requirements are only legally defensible if they seek to implement legitimate and logical recreation goals and objectives. For these various reasons, the following recreation analysis is offered.

Presently each of the individual municipalities and school district acquires, develops and programs their parks independent from one another. Several of the recreation-related goals of this Plan suggest that it is important to:

Supplement the School District's offerings with expanded soccer fields and neighborhood parks within populated areas lacking such facilities.

There has never been a better time to undertake park and recreation planning on a regional basis. Various State-funded programs can help the Region design, and operate a regional recreation agency fine-tuned to meet its specific needs. ***The Region should appoint a Regional Recreation Board (RRB) made up of at least two voting members from each municipality (one elected official and another local recreation expert) and the School District who have an understanding of the Region's recreation needs and resources. This RRB should then prepare and submit an application to the Pennsylvania Department of Conservation and Natural Resources for a "Peer-to-Peer" project.*** In this study, an expert will visit with local park and recreation providers to gain a thorough understanding of their operations and activities. A maximum grant amount of $7,500 is available for Peer-to-Peer projects. The community must provide at least a 10% local cash match. The total project cost cannot exceed $8,250. At the end of the peer project, a recommendation will be tailored to best manage the Region's recreation needs and resources. Often, another "circuit-rider grant" is suggested to help cover the costs of initializing a Regional paid park and recreation staff. This circuit-rider grant funds 100% of such expenses the first year, 75% the second, 50% the third, and 25% the fourth years. Additional information on this program and its application requirements can be found online at:

http://www.dcnr.state.pa.us/recreation/grants/manual/forms/PEERgeninfoscope.doc

Facilities Inventory

The first step in a recreation analysis is an inventory of existing recreation facilities serving the Region's residents. The inventory below lists the indoor facilities available at the Region's various public schools and other sites. The inventory on the following pages is a series of tables which lists all identified recreation sites and their improvements within the Penns Valley Region. This inventory indicates the site name, the site's ownership and maintenance responsibilities, the site type, and its total recreation acreage. Following this is a specific list of recreation improvements at each site. This list is broken out under several major sub-headings, including playgrounds, fields and courts, picnic facilities, pools, trails, and support facilities. A final section at the bottom of the table allows for comments concerning a particular site, or the listing of any additional improvements.

The Public Facilities Map utilizes the information from the inventory to illustrate the geographic distribution of all recreation sites within the Penns Valley Region, including their types, and service radii for public-owned facilities.

INDOOR FACILITIES INVENTORY

SITE NAME	Aaronsburg Civic Club Building	Jr. & Sr. High School	Centre Hall Potter Elementary School	Miles Twp. Elementary School	Penns Valley Intermediate School	Gregg Township Elementary School	Millheim Borough Little League Fields
SITE TYPE		Community	Community	Neighborhood	Community	Neighborhood	Neighborhood
Gymnasium		2	1	1	1	1	1*
Full Basketball Court		2	1	1	1	1	1*
Swimming Pool							
Locker Rooms		4					Y**
Weight Room		1					
Wrestling Room							
Multipurpose Room							
Auditorium (no. of seats)		(777)					
Music Room		1	1		1	1	
Gymnastics Room (equipment)							
Library		1	1	1	1	1	
Meeting Room		2	1	1	1	1	
Dark Room		1					
Computer Lab		3	1	1	2	1	
Industrial Arts		1					
Other, comments							

* Ongoing discussions about possible renovations.
** Available, but require renovation.

FACILITIES INVENTORY

BACKGROUND	SITE NAME	Bald Eagle State Forest	Rothrock State Forest	State Game Lands #295
	OWNERSHIP & MAINTENAN CE	Commonwealth of PA	Commonwealth of PA	Commonwealth of PA
	SITE TYPE	Regional	Regional	Regional
	TOTAL ACREAGE (DEVELOPED)	44,681 ac. (within Region)	5,976 ac (within Region)	795 ac. (within Region)
PLAYGROUNDS	Swing Sets			
	Sliding Boards			
	Climbing Equipment			
	Merry Go-Rounds			
	Seesaws			
	Sand Boxes			
	Rocking Toys			
	Big Toys			
	Hopscotch			
	Four-Square			
FIELDS & COURTS	Baseball/Softball Fields			
	Soccer/Hockey Fields			
	Football Fields			
	Basketball Courts (hoops)			
	Tennis Courts			
	Volleyball Courts			
	Bleachers			
	Track			
	Media Booth			
PICNIC	Pavilions	Hairy John's Picnic Area		
	Total Picnic Tables (in pavilion)			
	Barbecue Pits & Grills			
	Benches			
TRAILS	Walking/Exercise Trails (length)			
	Biking Trails (length)			
	Fitness Trails (no. of stations)			
	Measured Path			
SUPPORT	Parking Spaces			
	Rest Rooms			
	Water Fountains			
	Snack Bar			
	Waste Receptacles			
	Bike Rack			
	Signs			
Other/Comments		• 47 miles trout stream • scenic drives • Mid-State Trail	• hunting/natural area	• Hunting • natural area

FACILITIES INVENTORY

BACKGROUND	SITE NAME	Seven Mountains Scout Camp (Potter Township)	Poe Valley State Park (Penn Township)	Colyer Lake (Potter Township)
	OWNERSHIP & MAINTENANCE	Juniata Valley Council BSA	PA DCNR	PA Fish & Boat Comm.
	SITE TYPE	Regional - Private	Regional	Regional
	TOTAL ACREAGE	207	620	155.6
PLAYGROUNDS	Swing Sets			
	Sliding Boards			
	Climbing Equipment			
	Merry Go-Rounds			
	Seesaws			
	Sand Boxes			
	Rocking Toys			
	Big Toys			
	Hopscotch			
	Four-Square			
FIELDS & COURTS	Baseball/Softball Fields			
	Soccer/Hockey Fields			
	Football Fields			
	Basketball Courts (hoops)			
	Tennis Courts			
	Volleyball Courts			
	Bleachers			
	Track			
	Media Booth			
PICNIC	Pavilions		X	
	Total Picnic Tables (in pavilion)		X	
	Barbecue Pits & Grills		X	
	Benches		X	
TRAILS	Walking/Exercise Trails (length)	x	X	
	Biking Trails (length)			
	Fitness Trails (no. of stations)			
	Measured Path			
SUPPORT	Parking Spaces	x	X	
	Rest Rooms	x	X	
	Water Fountains	x	X	
	Snack Bar	x	X	
	Waste Receptacles	x	X	
	Bike Rack			
	Signs	x		
Other/Comments		• Cabins and tent camping • Lake • Swimming pool	• Camping, • Lake • Trails	• Boat ramps

FACILITIES INVENTORY

BACKGRONDUND	SITE NAME	Penns Valley Jr. & Sr. High School (Penn Township)	Penns Valley Elementary School (Penn Township)	Centre Hall – Potter Elementary School (Centre Hall Borough)
	OWNERSHIP & MAINTENANCE	School District	School District	School District
	SITE TYPE	Community	Community	Community
	TOTAL ACREAGE	17	12.9	12.4
PLAYGROUNDS	Swing Sets		2	1
	Sliding Boards			
	Climbing Equipment		1	1
	Merry Go-Rounds			
	Seesaws			
	Sand Boxes		1	
	Rocking Toys			
	Big Toys			
	Hopscotch			
	Four-Square			
FIELDS & COURTS	Baseball/Softball Fields	2/1	0/1	0/1
	Soccer/Hockey Fields			
	Football Fields	1		
	Basketball Courts (hoops)		4	
	Tennis Courts	1		
	Volleyball Courts			
	Bleachers	4 sets	5 sets (200 seats)	
	Track	1		
	Media Booth			
	Scoreboard	1	1	
PICNIC	Pavilions			
	Total Picnic Tables (in pavilion)			
	Barbecue Pits & Grills			
	Benches	1		
TRAILS	Walking/Exercise Trails (length)			
	Biking Trails (length)			
	Fitness Trails (no. of stations)			
	Measured Path			
SUPPORT	Parking Spaces	Approx. 150	92	25
	Rest Rooms			
	Water Fountains			
	Snack Bar			
	Waste Receptacles	10		
	Bike Rack			
	Signs			
Other/Comments			37 acre environmental center located behind this school	

FACILITIES INVENTORY

BACKGRONDUND	SITE NAME	Penns Valley P&R Millheim Pool (Millheim Borough)	Miles Township Elementary School (Miles Township)	Gregg Township Elementary School
	OWNERSHIP & MAINTENANCE	Parks & Rec and Lions Club	School District	School District
	SITE TYPE	Community	Neighborhood	Neighborhood
	TOTAL ACREAGE	13.6	5.9	0.6
PLAYGROUNDS	Swing Sets	4		
	Sliding Boards	1	1	
	Climbing Equipment	1		1
	Merry Go-Rounds			
	Seesaws			
	Sand Boxes			
	Rocking Toys	2		
	Big Toys	1		
	Hopscotch			
	Four-Square			
FIELDS & COURTS	Baseball/Softball Fields		1/0	1/0
	Soccer/Hockey Fields			
	Football Fields			
	Basketball Courts (hoops)			1
	Tennis Courts	1		
	Volleyball Courts			
	Bleachers			
	Track			
	Media Booth			
	Scoreboard			
PICNIC	Pavilions	3		
	Total Picnic Tables (in pavilion)	30		
	Barbecue Pits & Grills			
	Benches			
TRAILS	Walking/Exercise Trails (length)	1		
	Biking Trails (length)			
	Fitness Trails (no. of stations)	1		
	Measured Path	1		
SUPPORT	Parking Spaces	X	14	20-25
	Rest Rooms	2		
	Water Fountains	1		
	Snack Bar	1		
	Waste Receptacles	X		
	Bike Rack			
	Signs	1		
Other/Comments		• 2 horseshoe pits • wooden train		

FACILITIES INVENTORY

BACKGRONDUND	SITE NAME	Millheim Borough Little League Fields (Millheim Borough)	Fountain Park (Millheim Borough)	Centre Hall Lions Club (Centre Hall Borough)
	OWNERSHIP & MAINTENANCE	Little League & Cen-Clear Child Services	Millheim Borough	Centre Hall Lions Club
	SITE TYPE	Neighborhood	Neighborhood	Neighborhood - Private
	TOTAL ACREAGE	1.25 acres	½ acre	7.1
PLAYGROUNDS	Swing Sets	5		
	Sliding Boards	1		
	Climbing Equipment	1		
	Merry Go-Rounds	1		
	Seesaws	1		
	Sand Boxes			
	Rocking Toys	1		
	Big Toys			
	Hopscotch			
	Four-Square			
FIELDS & COURTS	Baseball/Softball Fields	2 little league		
	Soccer/Hockey Fields			
	Football Fields			
	Basketball Courts (hoops)	2		(1)
	Tennis Courts			
	Volleyball Courts			
	Bleachers			
	Track			
	Media Booth			
	Scoreboard			
PICNIC	Pavilions		1 gazebo	1
	Total Picnic Tables (in pavilion)			
	Barbecue Pits & Grills			In pavillion
	Benches			
TRAILS	Walking/Exercise Trails (length)			
	Biking Trails (length)			
	Fitness Trails (no. of stations)			
	Measured Path			
SUPPORT	Parking Spaces	X	Parking lot	X
	Rest Rooms	Portable		2
	Water Fountains		1	
	Snack Bar	1		x
	Waste Receptacles	x	2	x
	Bike Rack			
	Signs		1	x
Other/Comments		• Bleachers • Media booth		• Open play area

FACILITIES INVENTORY

BACKGRONDUND	SITE NAME	American Legion (Potter Township)	Spring Mills Ballfield (Gregg Township)	Don Wert Memorial Park (Haines Township)
	OWNERSHIP & MAINTENANCE	Smith Pletcher Home. Assn.	Christopher Kunes	Aaronsburg Civic Club
	SITE TYPE	Neighborhood - Private	Neighborhood - Private	Neighborhood - Private
	TOTAL ACREAGE	9.5 acres	5.8 acres	1.3 acres
PLAYGROUNDS	Swing Sets			
	Sliding Boards			
	Climbing Equipment			
	Merry Go-Rounds			
	Seesaws			
	Sand Boxes			
	Rocking Toys			
	Big Toys			
	Hopscotch			
	Four-Square			
FIELDS & COURTS	Baseball/Softball Fields	1	1	
	Soccer/Hockey Fields			
	Football Fields			
	Basketball Courts (hoops)			(1)
	Tennis Courts			
	Volleyball Courts			
	Bleachers			
	Track			
	Media Booth			
	Scoreboard			
PICNIC	Pavilions			gazebo
	Total Picnic Tables (in pavilion)			
	Barbecue Pits & Grills			
	Benches			
TRAILS	Walking/Exercise Trails (length)			
	Biking Trails (length)			
	Fitness Trails (no. of stations)			
	Measured Path			
SUPPORT	Parking Spaces			
	Rest Rooms			
	Water Fountains			
	Snack Bar			
	Waste Receptacles			
	Bike Rack			
	Signs			
Other/Comments		•	• open play area	•

FACILITIES INVENTORY

BACKGRONDUND	SITE NAME	Rebersburg Fire Co. (Miles Township)	Millheim Firemans Club (Millheim Borough)	Coburn Park (Penn Township)
	OWNERSHIP & MAINTENANCE	Miles Township	Millheim Firemans Club, Inc	Penn Township
	SITE TYPE	Neighborhood	Neighborhood - Private	Neighborhood
	TOTAL ACREAGE	4.1 acres	1.6 acres	4.2 acres
PLAYGROUNDS	Swing Sets			4
	Sliding Boards			
	Climbing Equipment			
	Merry Go-Rounds			
	Seesaws			
	Sand Boxes			
	Rocking Toys			
	Big Toys			1 with surfaces
	Hopscotch			
	Four-Square			
FIELDS & COURTS	Baseball/Softball Fields	1		1
	Soccer/Hockey Fields			
	Football Fields			
	Basketball Courts (hoops)			
	Tennis Courts			
	Volleyball Courts			1 sand
	Bleachers			
	Track			
	Media Booth			
	Scoreboard			
PICNIC	Pavilions	x		2
	Total Picnic Tables (in pavilion)			10
	Barbecue Pits & Grills			3
	Benches			x
TRAILS	Walking/Exercise Trails (length)			
	Biking Trails (length)			
	Fitness Trails (no. of stations)			
	Measured Path			
SUPPORT	Parking Spaces			
	Rest Rooms			
	Water Fountains			
	Snack Bar	x		
	Waste Receptacles			
	Bike Rack			
	Signs			1
Other/Comments		• Fair booths / w elec. • Dugouts • Bleachers	•	• creekside • open play area • shed w / elec.

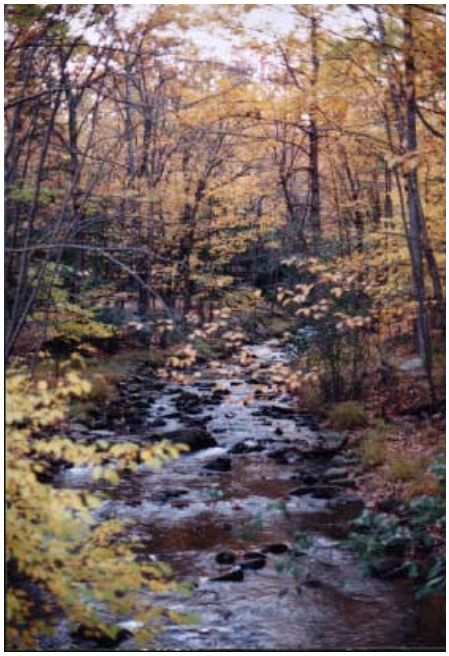
FACILITIES INVENTORY

BACKGRONDUND	SITE NAME	Woodward Sports Camp (Haines Township)	Shaner Sports Complex (Potter Township)	Woodward Cave Campground	POS of A
	OWNERSHIP & MAINTENANCE	Sports Management Group	Boyd Homan	Private	
	SITE TYPE	Commercial	Commercial	Commercial	
	TOTAL ACREAGE	34.4 acres	25.8 acres	5.7 acres	
PLAYGROUNDS	Swing Sets				
	Sliding Boards				
	Climbing Equipment				
	Merry Go-Rounds				
	Seesaws				
	Sand Boxes				
	Rocking Toys				
	Big Toys				
	Hopscotch				
	Four-Square				
FIELDS & COURTS	Baseball/Softball Fields				
	Soccer/Hockey Fields				
	Football Fields				
	Basketball Courts (hoops)				
	Tennis Courts				
	Volleyball Courts				
	Bleachers				
	Track				
	Media Booth				
	Scoreboard				
PICNIC	Pavilions				1 w/tables
	Total Picnic Tables (in pavilion)				
	Barbecue Pits & Grills				1 BBQ pit
	Benches				
TRAILS	Walking/Exercise Trails (length)			RV/tent camping	
	Biking Trails (length)				
	Fitness Trails (no. of stations)				
	Measured Path				
SUPPORT	Parking Spaces				
	Rest Rooms			x	
	Water Fountains				
	Snack Bar			x	
	Waste Receptacles			x	
	Bike Rack				
	Signs			x	
Other/Comments		•	• State College Baseball Association	•	• Mini stage

Spatial Park Analysis

With a complete inventory of parks, it becomes possible to analyze the level of park service available within the Penns Valley Region. Within this analysis, every publicly-owned park and/or recreation facility (Township, Borough, and School District) is identified. In some cases, privately-owned sites are included if they are typically available for public use. Then, its size and service area is evaluated in relation to its intended service population. Conversely, this analysis also identifies those areas of the Region that lack close, convenient, and safe access to public parkland. Typically, these evaluations are based upon prescribed standards for park size per 1,000 persons being served and also for predetermined service radii. The National Recreation and Park Association (NRPA) generally assigns such standards for various park types. These standards are applied to evaluate the allocation and spatial distribution of the Region's park system.

Regional parks generally contain 200± acres and are typically located within a one hour driving time from the population being served. These parks are generally located throughout a large metropolitan region, and can accommodate a wide variety of recreational activities. Often, these parks are owned and operated by the State and Federal government, and in the case of Pennsylvania, many State Game Lands are included in this category. Regional parks usually have a natural orientation with hiking, camping, and picnicking facilities. Other "activity-oriented" facilities, as well as significant historic or archaeological resources, might also be included.



Within Centre County, several public organizations and private enterprises are involved with the provision of regional recreation facilities. Within the Penns Valley Region are five regional parks. The following table lists regional parks within the Penns Valley Region:

Facility	Acres in Region	Ownership
Bald Eagle State Forest	44,681	Commonwealth of PA
Rothrock State Park	5,976	Commonwealth of PA
PA State Gamelands Nos. 295	795	PA State Game Commission
Seven Mountains Scout Camp	207	Juniata Valley Council Boy Scouts of America
Poe Valley State Park	620	Commonwealth of PA
Colyer Lake	156	PA Fish & Boat Commission
Total	**52,435**	

Clearly the Region enjoys more than its share of regional parklands. However, because the size and cost usually associated with regional parks transcend the responsibilities of local government, this Plan does not recommend any specific actions associated with the acquisition and development of more regional parks. However, it is recommended that future land use planning directly reflect these important features which contribute to the Region's economic, natural and cultural well-being. Next, this Plan will focus upon the remaining park types within the Region beginning with community parks.

Community parks usually contain 20± acres and are intended to serve a population within a 2 mile-service radius. They should be sized at the rate of 5 to 8 acres for 1,000 persons served. These parks generally involve a high level of improvement with multiple sets of athletic fields and courts. Sometimes swimming pools and indoor recreation centers are situated on these community-wide parks. Larger school sites (usually middle, and high schools) have the facilities to qualify as community-based parks, and represent valuable recreation resources that can significantly enhance the level of recreation services offered to a given area. Finally, sometimes smaller specialized facilities (like the Millheim Pool) qualify as community parks due to their use by a larger service area than that of a neighborhood park. The table below lists all publicly-owned community parks.

Community Parks Within the Penns Valley Region

Park Name	Municipality	Acreage
Penns Valley Junior and Senior High School	Penn Township	17
Penns Valley Elementary School	Penn Township	12.9
Centre Hall – Potter Elementary School	Centre Hall	12.4
Millheim Pool	Millheim Borough	13.6
Total Community Park Acreage within the Region		**55.9 ac.**

Within the Region, community parks tend to be smaller than the national average. The Public Facilities Map Illustrates the locations and configurations of all community parks within the Region. Additionally, a two-mile service radius was drawn around the perimeter of each park to determine its respective service areas. The areas shaded in light blue illustrate those portions of the Region located within the existing two-mile service boundaries. Fortunately two of these larger parks are found within close proximity of the denser Boroughs. Obviously, the Region is highly dependent upon the School District Campus for community parkland that has a central but rural location.

Millheim Pool, the Region's only public pool.

Given its elongated configuration and rural character, it would seem impractical to provide for community park service area coverage throughout the Region. Instead, this Plan will distinguish between "urban growth areas" in which a full range of public facilities and services will be focused (including parklands), and rural areas where lesser or no amenities will be delivered. Therefore, it is important that future residential growth areas be targeted to areas where community parklands exist or can be provided.

Next, local officials need to know how much additional community parkland is needed to meet future demand. Based upon the NRPA minimum guideline of 5 acres of community parkland for each 1,000 residents and the population projections provided in Chapter IV of this Plan, the table below illustrates the community parkland area needed to adequately serve the Region now and in the future:

Existing & Projected Community Parkland Needed Within the Region				
Year	**Population**	**NRPA-Recommended Acres 5 ac. per 1000 persons**	**Existing Acres**	Surplus/ **Deficiency**
2000	11,382	57	55.9	–1.1
2010	12,246	61	55.9	-5.1
2020	13,110	65.5	55.9	-9.6

From the preceding table, it appears that the Region has previously provided for just under 5 acres of community parkland per 1000 population which is the minimum accepted ratio as suggested by the NRPA. If no additional community parkland is acquired over the next twenty years, the Region will have a deficit of nearly 10 acres compared with the minimum standard and the ratio will drop to about 4.3 acres of community parkland per 1000 population. ***Therefore, it is important the Region add about 10 more acres by the year 2020.***

The recreation goals for this Plan emphasize the need for additional soccer fields at the School District campus. ***Rather than devote the considerable land area to only one field type, it is recommended that the School District add multi-purpose fields for baseball, soccer, field hockey, and lacrosse.*** These multi-purpose fields maximize return and enjoyment across all seasons and enhance the variety of recreation and athletic activities possible. These fields generally cost about $50,000 and require about 3 acres per field. Based upon the land area projections for community parks, it is recommended that at least three such fields be added at this location by the year 2020.

Neighborhood parks are the third park type advocated by recreation experts. These parks are generally between 1 and 20 acres in size and meant to serve a population of 2,000 to 10,000. The recommended service area for these parks is a one-quarter to one-half mile radius. As implied by the name, these parks are intended to provide close-to-home areas for limited athletic activities, playgrounds, and passive pursuits. The NRPA recommends that one acre of publicly-owned land be devoted to neighborhood parks for each 1,000 residents. Within the Region, several neighborhood parks are owned by quasi-public agencies but appear to serve the general public; these too have been

counted among the Region's parklands. The following tabulates all neighborhood parks by municipality within the Region:

Neighborhood Parks Within the Penns Valley Region	
Park Name	**Acreage**
Centre Hall Borough	***7.1***
Centre Hall Lions Club	7.1
Gregg Township	***6.4***
Spring Mills Elementary School	0.6
Spring Mills ballfield	5.8
Haines Township	***1.4***
Aaronsburg Civic Club	1.4
Miles Township	***10.0***
Miles Township Elementary School	5.9
Rebersburg Fire Company	4.1
Millheim Borough	***3.4***
Little League Fields	1.3
Fountain Park	0.5
Firemans Club	1.6
Penn Township	***4.2***
Coburn Park	4.2
Potter Township	***9.5***
American Legion	9.5
Penns Valley Region	***42.0***

The Parks Map identifies the locations and configurations of all neighborhood parks in the Region. Like community parks, a service radius was drawn around the perimeter of each neighborhood park to determine its service area. The NRPA recommends a maximum one-half mile service radius. In addition, the same ½ mile service radius was mapped around existing community parks as these facilities too can serve neighborhood park needs of nearby residents. The neighborhood park service areas are shaded in light green on the Parks Map.

Fountain Park in "downtown" Millheim Borough

Like for community parks, local officials need to know how much additional neighborhood parkland is needed to meet future demand. Based upon the population projections for the Region as a whole, the table below illustrates the neighborhood parkland area needed to adequately serve projected growth:

Existing & Projected Neighborhood Parkland Needed Within the Region				
Year	**Population**	**NRPA-Recommended Acres 1 ac. per 1000 persons**	**Existing Acres**	Surplus/ **Deficiency**
2000	11,382	11.4	42.0	+ 30.6
2010	12,246	12.2	42.0	+ 29.8
2020	13,110	13.1	42.0	+ 28.9

Coburn Park in Penn Township

From an acreage standpoint the Region has an abundance of neighborhood parkland now and in the projected future. Furthermore, its coverage of densely-populated areas is also adequate. However, the Region is particularly reliant upon some quasi-public and even a few private landowners for neighborhood parks. Only Miles and Penn Townships have sufficient acreage within public ownership to satisfy their current and projected demand. Therefore, the other municipalities may need to add neighborhood parklands if and when public access to the quasi-public parks is eliminated. For these reasons it is important that new neighborhoods be fitted with local parks to overcome this potential future deficiency. More on this subject will be presented under the Mandatory Dedications Section of this Chapter found on pages 123-125.

Parks comprise more than land; improvements are equally important. The facilities located within the Region's neighborhood parks are somewhat similar and limited. Many have the same list of facilities suggesting baseball popularity. Neighborhood parks should feature facilities in high demand, so if baseball continues to dominate local recreation preferences, then everything is fine. However, many municipalities are finding that the traditional "pastimes" of old are giving way to different activities. ***The Region should periodically gauge recreation preferences among all age groups and ensure that the, then, current preferences are accommodated by local park improvements. In addition, the Region should add more variety to its neighborhood parks. The following lists a "typical" schedule of improvements for a more diverse neighborhood park.***

"Typical" Neighborhood Park Improvements	Estimated Cost
1. a multi-purpose (soccer/baseball) athletic field;	$48,000
2. a modular playground with safety surfaces;	$30,000
3. 6-table picnic pavilion/tables/BBQ grills/waste receptacles;	$8,100
4. 20-space parking lot;	$19,140
5. 2 basketball courts;	$75,200
6. 1 sand volleyball court;	$8,000
7. 8 park benches;	$4,000
8. bike rack;	$500
9. landscaping and shade trees;	$16,000
10. park sign;	$4,000
11. contingency, bonding, and design costs (20% of improvement costs)	$42,588
Total Improvement Costs	***$255,528***

More specifically, both Haines Township and Millheim Borough have expressed interest in developing a skateboard park (skateboarding, in-line skating and freestyle bicycling) to serve this emerging activity and confine users to a well-managed and designed facility. Studies reveal that participation in these activities has increased dramatically and that municipalities that have installed such parks consider them to be of great benefit. ***The following are several steps that have been identified as "key" to developing and operating a successful skateboard park:***

KEYS TO A SUCCESSFUL SKATEBOARD PARK

1. ***Obtain proper insurance with carrier that specializes or has experience with skateboard parks;***
2. ***Determine the level of supervision needed;***
3. ***Organize and involve skaters of all ages and skill levels in the process of park design with guidance from design professionals that have requisite expertise and experience with a variety of design options;***
4. ***Incorporate modular equipment that can be rearranged to yield differing courses and skill levels;***
5. ***Promote community support for the park and publicize its benefits through local media;***
6. ***Locate the park in a visible and accessible location, that is separated from residential neighborhoods with setbacks and/or installed buffers (eg. plants, walls, fences, etc.);***
7. ***Provide hard surface with a minimum of 7,500 square feet, possibly in an underutilized athletic court or parking area. Select space with room-to-grow;***
8. ***Select ramp materials best suited to the available budget, intensity of use, ease of maintenance and local environmental conditions with help from manufacturers, sales and reference contacts;***
9. ***Ensure that the park has the necessary related features to function properly and be accessible to all citizens;***
10. ***Post park rules prominently and apply strict enforcement;***
11. ***Develop and post an emergency response procedure in case of an accident or injury; and,***
12. ***Celebrate the park opening with a special widely publicized event.***

Linear parks are also gaining in popularity throughout the nation as less and less open space remains within developing areas. The Penns Valley's relative undisturbed state provides tremendous opportunity to secure a system of connected paths and trails that could offer valuable recreation and travel amenity before future developments would block their alignments. Clearly the Region's upland State Forests already offer such opportunities and this Plan should reflect these conditions and prevent new developments that would threaten them or their natural surroundings. But down in the valleys, conditions are different and most of the land is cultivated. Typically, farmers are most resistant to the creation of public trails through their farms for reasons of vandalism, litter and security. It is very unlikely that the Region can expect to develop an extensive system of public trails here. Instead, it should focus on one or maybe two important connections as natural and cultural opportunities exist. Such opportunities will be explored in the upcoming Greenways Plan being developed for Centre County.

Today the Region contains the Mid State Trail system (MST). This is a long distance hiking trail with side trails in central Pennsylvania. The current northern end is at the West Rim Trail on Bohen Run north of Blackwell and the southern end is a junction with Green Ridge Hiking Trail in Maryland at the Mason-Dixon line. The MST is almost entirely on public land: state forests, game lands and parks. It links or traverses a token roadside rest (Penn DOT), a covered bridge built in 1879, Huntingdon and Broad Top RR grade, two scout camps, two fire towers, three state forest wild areas, five state forests, four state game lands, four state forest picnic areas, eight state parks and eight state forest natural areas, as well as Stone Valley Recreation Area, the Lower Trail, and the Woolrich Factory Outlet Store. The Frankstown to Burnt Cabins Indian Path is crossed and the Great Island Indian Path is followed in part by MST.

Source: http://www.fallinpa.com/fallinpa/multiDayHikes.jsp?section=midState

"Intermediate access from paved roads is available from PA 326 near Hewitt, Beans Cove Road, PA 326 in Rainsburg Gap, SR 1004 in Everett, SR 1005 in Snake Spring Valley, PA 36, PA 164, PA 866 at Williamsburg, US 22, PA 26, US 322, PA 45, PA 192, Sugar Valley Narrows Road, PA 880, PA 150, PA 44, SR 4001 and PA 414. There are a host of unpaved roads that also provide access in season.


Orange blazes mark trail

"The MST is marked with rectangular orange blazes on the main trail and blue blazes on side trails. Double blazes are used to mark turns. Avoid red blazed horse and bike trails which intersect MST in Bald Eagle and Tiadaghton Forests. Principle features of the MST are its many views, side trails and fragile illusion of isolation and wilderness. The narrow ridges

afford views and provide an illusion of remoteness and solitude in the second most industrialized state in the nation, yet the MST is rarely more than 2 kilometers from the nearest road. The level of usage is still low and if you hike alone you may meet more bears than people. Thus its recognition as "The Wildest Trail in Pennsylvania".[1] Within the Region the Mid-State Trail can be accessed along PA Route 144 about ¾ of a mile south of the Village of Pleasant Gap. ***This Plan will respect the integrity of this "wilderness" trail by isolating it from planned intensive urban land uses.***

Mandatory Dedication (or fee-in-lieu thereof) of Recreation Land

Mandatory dedication of parkland has become a standard technique for local park systems to keep pace with growth since it was enabled by the Pennsylvania Municipalities Planning Code in the late 1980s. To date, none of the municipalities within the Region have taken advantage of this technique to acquire parkland or generate revenues for park improvements. It is testament to the resourcefulness of the Region's municipalities that they have been able to acquire the current park system without this approach. This is one of the few techniques authorized to help municipalities obtain revenues and resources to keep pace with growth and development. Each municipality is recommended to make use of this technique and "tap" new developments for lands and/or funds to be developed into parks.

In order to adopt mandatory dedication standards, municipalities must undertake some background analysis so as to identify "reasonable" standards that relate to the need for parkland. Using the Region's demographics, land values and parkland needs it is possible to calculate mandatory dedication standards and their related fees-in-lieu-thereof. The following will provide a basis for such calculations:

The NRPA's recommended minimum standards for local parklands as used to determine the adequacy of existing parks earlier in this Chapter are listed below:

NRPA Local Park Acreage Standards	
Park Type	**Minimum Acres Needed per 1,000 Population**
Community Park	5 acres
Neighborhood Park	1 acre
Total	***6 acres***

To date, the Region has provided publicly-owned local parklands at a rate of about 5.8 acres per 1000 population, just below the NRPA standards listed above. To derive a per unit or per lot standard, the 1,000 population is divided by the average household size (year 2000) reported for each municipality as follows:

[1] http://www.kta-hike.org/mid.htm (April 10, 2003)

Mandatory Parkland Dedication Calculations			
Municipality	**2000 Average Household Size**	**No. of Dwellings per 1,000 Population**	**Required Park Acres per Dwelling Unit**
Centre Hall	2.10	476	.013 acres
Gregg	2.29	437	.014 acres
Haines	2.21	452	.013 acres
Miles	2.27	441	.014 acres
Millheim	2.25	444	.014 acres
Penn	1.96	510	.012 acres
Potter	2.28	439	.014 acres
Region	***2.22***	***450***	***.013 acres***

As an alternative to parkland dedication, municipalities can accept a fee-in-lieu of park-land dedication. This approach can only be used in those instances where the developer and municipality agree on the amount of the fee-in-lieu. In addition, such funds cannot be used merely to maintain existing facilities, but must be used to:

1. purchase new parkland;
2. purchase new equipment for new or existing parks; and/or,
3. make improvements to existing parks that will serve existing residents and those of the proposed development.

According to requirements within the Municipalities Planning Code, amounts of the fees-in-lieu should be derived from the following approach:

An appraiser should be retained by the municipality to analyze recent real estate transactions and derive estimates of fair market value. Such estimates can be based upon all properties within the municipality, or on a neighborhood basis. It is important that the appraiser be informed of the development features (e.g., utilities, zoning, curbs, sidewalks, etc.) common to such lands, so that accurate real estate comparisons can be identified. Once these estimates are derived, they should be periodically updated to reflect the ever-changing value of land.

When disputes between the developer and municipality occur, both the developer and municipality should select an appraiser who, in turn, should jointly select a third appraiser. This third appraiser should then determine the fair market value of the land.

Funds collected under this approach must be used to provide for recreation facilities that are accessible to residents of the proposed development. In determining accessibility to the park, local officials should be guided by the respective park service areas as listed in this Plan.

To estimate the value of fees-in-lieu of parkland dedication an average value of $40,000 per acre will be used to account for the value of improved residentially-zoned land within

the Region. The following lists estimated values for fees-in-lieu of parkland dedication by municipality.

Suggested Mandatory Parkland Dedication/Fees-in-Lieu Standards		
Municipality	**Required Park Acres per Dwelling Unit**	**Fee-In-Lieu of Parkland**
Centre Hall	.013 acres	$520 per unit
Gregg	.014 acres	$560 per unit
Haines	.013acres	$520 per unit
Miles	.014 acres	$560 per unit
Millheim	.014 acres	$560 per unit
Penn	.012 acres	$480 per unit
Potter	.014 acres	$560 per unit
Region	***.013 acres***	***$520 per unit***

By applying these above figures to the Region's projected growth as described in Chapter III, the following dedicated acres and/or fees-in-lieu can be collected to meet increasing park demand generated by growth:

Projected Dedicated Parklands or Fees-In-Lieu-Thereof 2000 to 2010			
Time Period	**Projected New Dwellings**	**Projected Dedicated Parklands**	**Projected Fees-In-Lieu of Parkland Dedication**
2000-2010	819	10.6 acres	$425,880
2000-2020	1638	21.2 acres	$851,760

As can be seen, the value of mandatory dedication/fee-in-lieu-thereof standards is about $850,000 across the Region through the year 2020, which unless implemented will have to be generated through other means. For this reason, it is vital that each municipality within the Region either adopt its own mandatory dedication standards within their respective Subdivision and Land Development Ordinances or that Centre County apply similar provisions within the County Subdivision and Land Development Ordinance on their behalf.

The revenues/parklands acquired through this process should be used across the Region as detailed in this Chapter and recommended in the upcoming peer-to-peer study. The RRB should oversee such spending on an ongoing basis. In coming years, the calculations contained in this section should be updated so as to allow for parkland/ revenues to keep pace with changing demographics and land values.

C. Police Protection

Police protection is an obvious public service benefiting residents and businesses. The traditional role of the police involves three functions: law enforcement, order maintenance, and community service. Law enforcement involves the application of legal sanctions, usually arrest, to persons who injure or deprive others of life or property. Order maintenance involves the handling of disputes, or of behavior which threatens to produce disputes. The third aspect of the police function, and the one most likely to occupy the major portion of an officer's time, varies from community to community according to tradition and local ordinances. These activities include such tasks as traffic control, rescue operations, animal control, and ambulance and first-aid services.

Police protection within the Penns Valley Region is provided by State police coverage. Centre Hall Borough contracts with the Spring Township Police department for part-time patrol every six months. All emergency police calls are dispatched through the Centre County "911" program.

PENNSYLVANIA STATE POLICE

The following information was obtained from Lieutenant Jeffrey S. Watson of Troop G of the Pennsylvania State Police Department via mail-back survey.

This Troop of the Pennsylvania State Police serves 14 Townships, 5 Boroughs and 28 miles of I-80 within Centre County. Specifically within the Penns Valley Region, this Troop provides primary police protection throughout the Region. The Region is divided among two patrol zones. Centre Hall Borough, Gregg and Potter Townships are located in Patrol Zone 18 while Millheim Borough and Haines, Miles and Penn Townships are situated in Patrol Zone 17. Patrol shifts run around-the-clock with the following schedule:

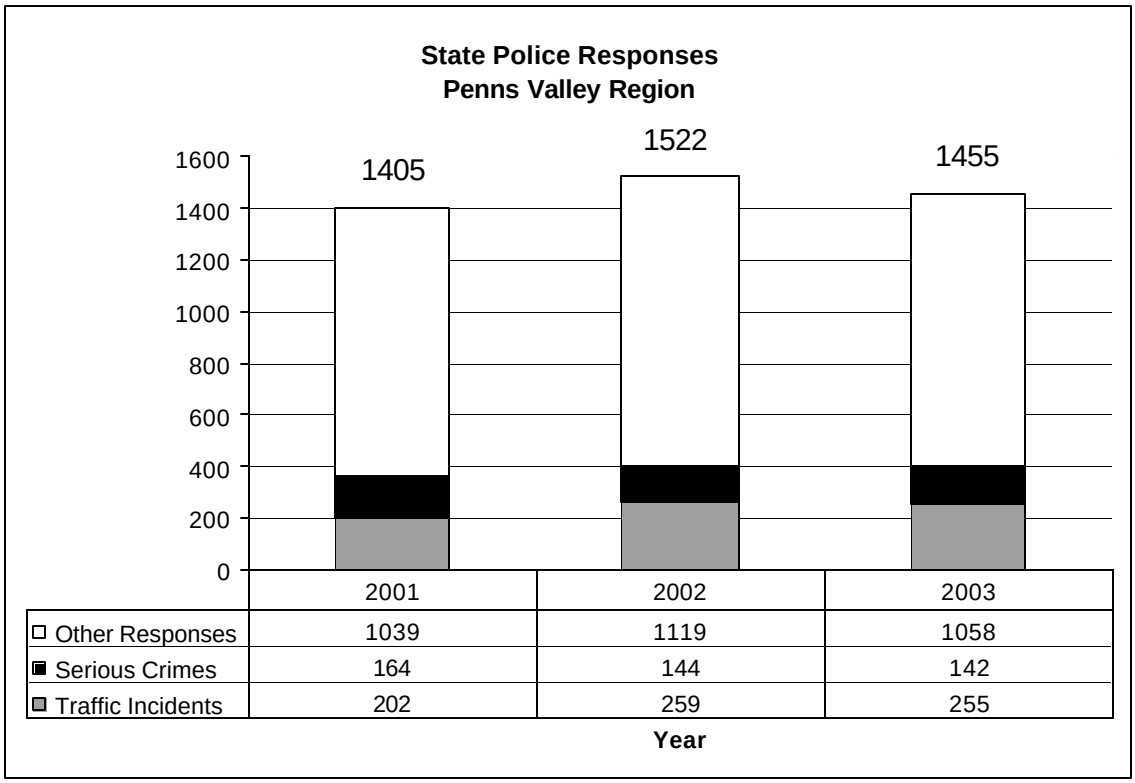
Pennsylvania State Police Shifts		
Day shift	**Evening Shift**	**Night Shift**
7:00 A.M. to 3:00 P.M.	3:00 P.M. to 11:00 P.M.	11:00 P.M. to 7:00 A.M.

Generally, one trooper is assigned per day and evening shift to cover both Patrol Zones 17 and 18. During the night shift one 2-person car is assigned to cover the State Police's entire patrol area within Centre County. Presently this facility houses 19 full-time patrol officers, 8 supervisors, 5 full-time detectives, 4 office assistants, 1 fire marshal and 1 accident reconstruction specialist. Manpower needs are assessed annually by the Pennsylvania State Police, Bureau of Research and Development, using a complex equation that considers demographics, geography, crime patterns, and statistics and other factors.

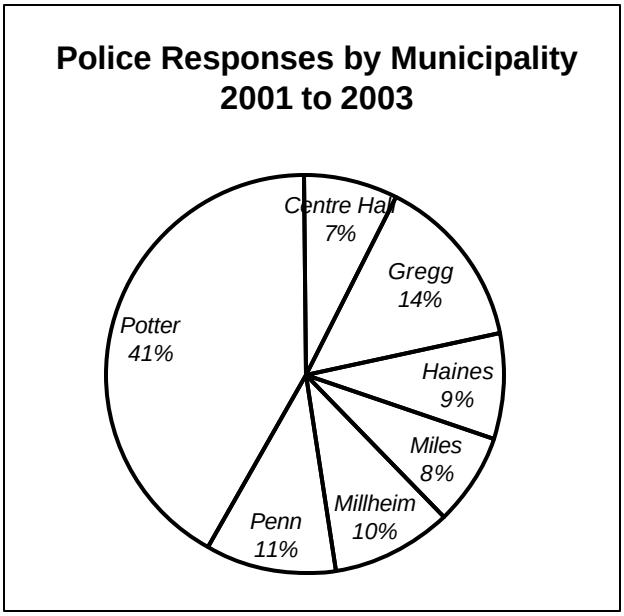
The remodeled Troop G headquarters is located at 745 South Eagle Valley Road in Boggs Township. This facility has 10 large rooms for offices, detention, gymnasium communications, and a garage. The facility is due for a "review" in the spring of 2005 as the State had previously decided to postpone this review to better understand the impact that the new I-99 would have on demand for police service and traffic accessibility.

According to the Lieutenant, changes will likely occur as the State Police has initiatives to consolidate offices and communications dispatch which could restructure the Troop.

Response times vary widely across the Patrol Zones but emergency responses should take no longer than 10 minutes from dispatch.



Finally, Lieutenant Watson believes that the State Police have the necessary manpower, equipment and resources to adequately serve the Region's needs. He believes that his agency and the municipalities within the Region cooperate "reasonably-well," despite a communication barrier resulting from different radio formats used by his agency and those of Centre County "911" and the local municipalities. New radios are expected in 2004 or 2005 and this problem should improve.



FUTURE POLICE PROTECTION

Centre Hall and Millheim Boroughs and Potter Township have all expressed interest in considering the creation of a local police force while the other Townships intend to continue relying upon protection from the PA State Police. As an area develops, local officials find

themselves torn between retaining low levels of taxation, and providing for increasing levels of public facilities and services that are usually expected by the "newcomers." This often pits long-time residents of the community who want things to remain as they were against new residents who move from more urbanized locations, and are often surprised and disappointed by the relative lack of public services. At some point, the new residents usually outnumber the existing inhabitants and the political winds change. At that time, new officials are elected on platforms of better delivery of more services, and divergence within the community develops.

Local officials need to know and understand these pressures if they are to persevere through the transition. The question is not **if** better services and higher taxes result, but **when**! Fortunately, State programs exist to assist municipalities with these difficult studies and decisions and offer independent expert advice. Some of these programs are free, while others are offered in the form of peer-to-peer grants. In any event, these programs and grants can provide invaluable assistance to the open-minded elected official who is trying to "cut through" all of the local politics and emotion. A regional police feasibility study under the PA DCED Regional Police Assistance Grant Program provides grants for a period of up to three years for the start-up of consolidated police departments. It helps to pay (up to $99,000) for a Regional Police Chief salary and other related expenses. More information can be obtained from Dale Frye at 1-888-223-6837 or email dalfrye@state.pa.us.[1] ***At such time as local citizens begin to demand these higher levels of coverage, the "affected" municipalities should engage such a feasibility study to determine the best course of action.***

D. Fire Protection and Ambulance Service

Fire protection is a basic public safety service that is important to the Region. Obviously, fire protection is intended to minimize the loss of life and property due to fire and related hazards. The level of fire protection a community offers also affects the rate which area residents and business owners must pay for fire insurance. Three fire companies are located within the Penns Valley Region. In addition to being responsible for their primary service areas, these companies provide reciprocal, mutual-aid assistance to each other and to other surrounding fire companies as needed. Mutual-aid assistance enables neighboring fire departments to supplement manpower and equipment, and thereby respond more effectively to multiple or major calls.

Ambulance service is an obvious lifesaving benefit. Emergency ambulance service involves the pick-up of patients at the scene of an accident or other medical emergency, and their transport to local medical care facilities for treatment. Ambulance service can also involve routine transport, which is the transport of patients from one medical facility to another, or to their home. One ambulance company is located within and serves the Region.

The table on the following page summarizes key characteristics of the volunteer fire protection and ambulance services available within the Region, respectively.

[1] http://www.inventpa.com/default.asp?path=^community&prog=Regional+Police+Assistance+Grant+Program&cat=MUNICIPAL+SERVICES&bhcp=1

Summary Characteristics of Fire & Ambulance Companies Within the Penns Valley Region						
Company		**Centre Hall Fire Company**	**Gregg Township Fire Company**	**Miles Township Fire Company**	**Millheim Fire Company No. 1**	**Penns Valley EMS**
First Call Service Areas *Within the Region* (see *Public Facilities Map*)		***Centre Hall Borough & Potter Township***	***Gregg Township***	***Miles Township***	***Millheim, Haines and Penn***	***Penns Valley Region***
Mutual-Aid Service Areas *Within the Region*		Centre County and surrounding counties	Centre Hall, Miles & Millheim	***Millheim*** & Sugar Valley	***Centre Hall, Gregg, Miles & Potter***	western Union Co, Logan & Spring Twps, Milroy, Mifflin Co.
Station Locations *Within the Region* (see *Public Facilities Map*)		207North PA Avenue Centre Hall, PA 16828	PO Box 82, Spring Mills, PA 16875	102 Broad Street Rebersburg, PA 16872	103-105 North Street Millheim, PA	3585 Penns Valley Rd, Spring Mills, PA 16875***
Average No. of Volunteers		30 full-time voulunteers 30 part-time volunteers 5 fire police	20 full-time	30 full-time	35 full-time 6 fire police	20 part-time
1st Due Calls 2001-2003	**2001**	143+	25	30	44	625 total calls
	2002	149+	38	35	42	823 total calls
	2003	154+	36	45	40	831 total calls
Mutual-Aid Calls 2001-2003	**2001**	10% of above	10	25	18	NA
	2002		9	25	14	NA
	2003		12	25	16	NA
Average Emergency Response Time*		4 mins in evening longer during day	5-10 mins.	4 mins.	Under 5 mins.	8 mins.
Major Equipment		• 2 engines • 1 engine / rescue • 1 tanker • 1 brush truck	• '91 1000-gal. pumper • '80 1800-gal tanker • '87 1-ton utility • '79 brush truck	• 2 pumpers • 1 tanker • 1 brush truck • 1 equipment truck**	• 1- 1500-gal pumpers • 1 – 1250-gal. pumper • 1- 1800-gal tanker • 1 rescue truck • 1 utility truck	• 4 ambulances stocked with oxygen, AED, traction splints, suction units, long back boards and etc.
Issues		• daytime manpower • crowded station • lack of equipment • need joint training • need closer training sites	• lack of manpower • financial help to replace equipment	• Daytime manpower • financial help to replace equipment	• lack of manpower • financial help to replace equipment	• declining volunteers • daytime manpower • long response time • financial support

*Time that it takes the vehicle to leave the station.
**Needs replacement
*** Ambulances also housed at Centre Hall, Miles and Millheim Fire Companies

FUTURE VOLUNTEER MANPOWER

Each of the fire and ambulance companies expressed a concern over declining numbers of volunteers. This is particularly true of "younger volunteers" who will become the next generation of emergency service providers. However, given the projected growth within the Region, future demands will rise and more manpower will be needed. Nationally, volunteerism is declining. The National Volunteer Fire Council reported that the number of volunteer firefighters dropped 12% since its record high in 1983. And, despite President Bush's call to public service after "9/11", the downward trend continues. This often forces mutual-aid responses from distant companies; this strategy may work in the short term, but will eventually overburden volunteers who will get frustrated and quit. The more you demand of a volunteer, the less you are likely to receive! Declining manpower response is most problematic during the day when many volunteers work outside of their first-due response area.

Presently, 4 separate fire companies serve the Penns Valley Region with 115 full-time volunteers, 30 part-time volunteers and 11 volunteer fire police. A 1999 study conducted by the Pennsylvania Fire and Emergency Services Institute showed that most fire companies have between 11 and 20 active members. Consequently, the Penns Valley Region's average of 29 full-time members per company suggests that volunteerism is still strong throughout the Region. Nonetheless, local fire officials have observed a decline in new membership and know that difficult times lie ahead. Furthermore, in light of the terrorist attacks committed against the United States on September 11, 2001, many experts argue that the capacity to respond to local emergency crises needs to be expanded. Fortunately, many citizens within our society have begun to acknowledge the important and life-saving roles volunteer firefighters, EMTs and local police officers provide.

Although this Plan does not recommend the creation of a regional fire department, the various existing companies should cooperate to confront common challenges. To enlist more volunteer firefighters/EMTs, particularly during the daytime, it is recommended that the Region's municipalities and fire/ambulance companies seek to ensure that the following possible sources of daytime and other volunteers are put in place:

1. ***Recruit firefighters/EMTs who live within the Region and work for businesses located here;***

2. ***Recruit firefighters/EMTs who live outside of the Region, but work for businesses located here;***

3. ***Establish policies with local governments, businesses and industries that enable their employees to respond to daytime emergencies;***

4. ***Identify local volunteer firefighters/EMTs who may work for Centre County and State and Federal agencies, and establish policies for their release from work duties to respond to daytime emergencies within the Region;***

5. ***Design ongoing recruitment strategies for new resident volunteers and retention strategies for existing volunteers; and,***

6. ***Explore the offering of a "junior" firefighting curriculum within the public School Districts as a means of developing interest and expertise among potential future volunteers.***

7. ***Develop an internship program with the Pennsylvania State University.***

Prior to actual recruiting, the Region's Fire/Ambulance Chiefs should collectively complete the following evaluation process:

8. ***Determine the need by local fire/ambulance chiefs for more volunteers from any of the preceding sources within their respective companies;***

9. ***Establish policies within the Region's fire and ambulance companies that allow for nonresidents to become members of their respective companies;***

10. ***Identify those local and nonresident volunteers who work for companies within the Region who could potentially respond to daytime emergency calls;***

11. ***Determine the level of competence of potential volunteers and/or training needed to "run" with local companies;***

12. ***Establish ongoing working agreements with local businesses for the release of volunteer firefighters/EMTs during daytime emergencies;***

13. ***Require the potential "daytime" employee volunteer firefighter/EMTs to become an official member of the respective fire/ambulance company, so that they can be covered by the municipality's workmen's compensation insurance policy; and,***

14. ***Establish an ongoing mechanism that periodically reinitializes the recruitment process.***

Today, emergency services often involve specialized equipment and training. The Region's fire and ambulance companies already have an informal means of efficiently using the specialized skills and expertise of existing volunteers across the Region ***however, such practices should be formalized to deliver specialized training to ensure a wide and uniform coverage of specialized skills and expertise throughout the Region***. In addition, the PA DCED's Shared Municipal Services Program offers matching grants for any two or more municipalities who jointly perform local government functions. Such grants have been awarded to fund paid administrators to over see the preceding recruitment and training activities. ***The Penns Valley Region could benefit from the same type of position to carry out these same duties, as discussed in this section of the Plan.***

FUTURE FUND-RAISING

Like a lack of manpower, local volunteer fire and ambulance companies are plagued by rising costs associated with the need to purchase equipment and supplies and conduct training. A 2001 study conducted by the Pennsylvania Fire and Emergency Services Institute provided information about the costs saved by the Commonwealth's volunteer fire companies. Essentially, they assumed that, in the absence of volunteer fire companies, paid companies would require:

"Typical Costs Associated with Fire Protection in Year 2001"

- One fire company serves each 10,000 population;
- Each company requires 20 full-time paid firefighters;
- Each firefighter would be paid $55,000, including benefits;
- Each company would have an average annual operating budget of $50,000;
- The cost of protective clothing/gear for each firefighter would total $5,688;
- Each company would average 4 emergency vehicles at a cost of $275,000 per vehicle.

Using these assumptions, the Penns Valley Region would incur the following costs:

"Estimated Costs of Providing Fire Protection Within the Penns Valley Region in Year 2003"

- Penns Valley Region population of 12,000 would require 1.2 fire companies;
- $1,320,000 annual salaries of 24 paid firefighters;
- $60,000 annual operating expenses of 1.2 fire companies;
- $136,512 cost of protective clothing/gear; and,
- $1,320,000 cost of emergency vehicles.

The following tabulates the amounts contributed by each municipality to their respective fire and ambulance companies in year 2003:

Summary of Municipal Contributions to Local Fire & Ambulance Companies

Municipality	Fire Companies	Ambulance Companies	Total Contribution
Centre Hall Borough	$21,500	0	$21,500
Gregg Township	$7,495	$711.42	$8206.42
Haines Township	$14,294.16	$711.42	$15,005.58
Miles Township	$9,000	$711	$9711
Millheim Borough	$5,625	0	$5,625
Penn Township	$9,831.78	$711.42	$2,199
Potter Township	$80,935.71	$711.42	$81,647.13
Total Region	$148,699.65	$3,556.68	$152,256.33

A comparison of the Region's 2003 known contribution to the local volunteer fire companies of $148,699.65 is about 10.8 percent of the annual expenses needed to man and operate a paid equivalent complement of fire companies. ***In order to offset the***

financial value of local volunteer efforts, each of the Region's estimated 5300 households would need to pay about $243 per year to cover operating expenses. These figures do not even consider the capital costs associated with protective clothing/gear and emergency vehicles that would substantially increase monies needed. Also keep in mind that this analysis only relates to fire protection; volunteer ambulance services also provides for considerable cost savings. Undeniably, local volunteers have made, and continue to make, huge contributions to the safety and financial well-being of the Region. It is vital that their efforts continue!

Local officials and volunteers are aware of these difficulties. Yet, in many cases, an area's long-time residents usually financially support local fire and ambulance companies at an appropriate level. They have been historically educated about the value of local volunteer efforts. However, as the Region has grown and will continue to do so, many new residents have moved here from other, more urban, locations where paid fire-fighting and ambulance services are normal. These new residents are unaware of their reliance upon, and the plight of, local volunteer companies. Therefore, ***the Region must cultivate awareness among the newly-arrived residents of the need for their financial and manpower support to sustain volunteer firefighting and ambulance services.***

To accomplish this awareness, the local fire and ambulance chiefs must work with local municipalities on a regular and ongoing basis to mount an educational and media campaign. Such campaign must exceed the traditional general campaign that merely includes statements like the following:

- *"Local volunteer fire and ambulance campaigns depend entirely upon your donations";*
- *"Not a single tax dollar is used by local volunteer fire and ambulance companies."*

The new campaign should be more of an "in-your-face" effort that presents specific findings and presents hard, "credible" facts about the cost of delivering these services and the foreseeable equipment needs of the various companies. It should explain the benefits of new equipment and what it can mean to the Region. It should also portray the competent plans of the local companies in their attempts to ensure an adequate level of protection in the near and long-range future. Schedules for equipment replacements and upgrades should be accompanied with target financial goals to which the public can respond. Citizens should gain an understanding that local companies really need this equipment, and that they are not just "after" the newest and shiniest truck on the market.

To demonstrate these facts, the Region should (through the above-described Alliance) apply to the PA DCED for the preparation of a technical review, as part of its Shared Municipal Service Program, at no cost to the Region. This will require the preparation of a "Single Application for Assistance," a copy of which can be found online at www.esa.dced.state.pa.us***. The PA DCED will examine the adequacy of the Region's equipment to provide adequate service. Then, the results of these impartial and objective analyses should be used to program needed equipment purchases, and justify funding requests and pledge drives in the ongoing media and educational campaign. In addition, the results of the analysis can be used as***

justification for additional application to the PA DCED for 50/50 matching grants for other equipment needs, like communications and dry-hydrant programs.

Other related facts that should be emphasized to the public include:

- Local volunteer fire and ambulance companies are responding to ever-increasing numbers of calls based upon the Region's growth with actual figures presented; and,
- Local volunteer fire and ambulance companies are responding to a wider variety of types of calls and that the amount of time spent per incident is also increasing.

As a byproduct of this campaign, the municipalities should annually, publicly present the names of those businesses and individuals who contribute to the various companies. This will publicly recognize those who offered support, and potentially impose peer pressure to others who have not contributed to these important efforts. An annual subscription program can simplify this process. In addition, some volunteer ambulance companies have begun to affix advertising logos on the sides of their vehicles for private sponsors who contribute substantial sums each year.

Even though local volunteer firefighters are described as strong-willed, determined and fiercely independent, most agree that difficult times lie ahead. Therefore, as a long-term strategy, ***local volunteer fire companies and municipal officials should begin to explore the partial and gradual use of other funding mechanisms (e.g., billing for responses, fire tax, etc.), so that these measures can be phased-in, in support of local volunteer efforts, rather than allowing for complete failure of the volunteer system which would then be replaced by a completely-paid force.***

Other issues raised by local fire and ambulance companies that could improve emergency service to the Region include:

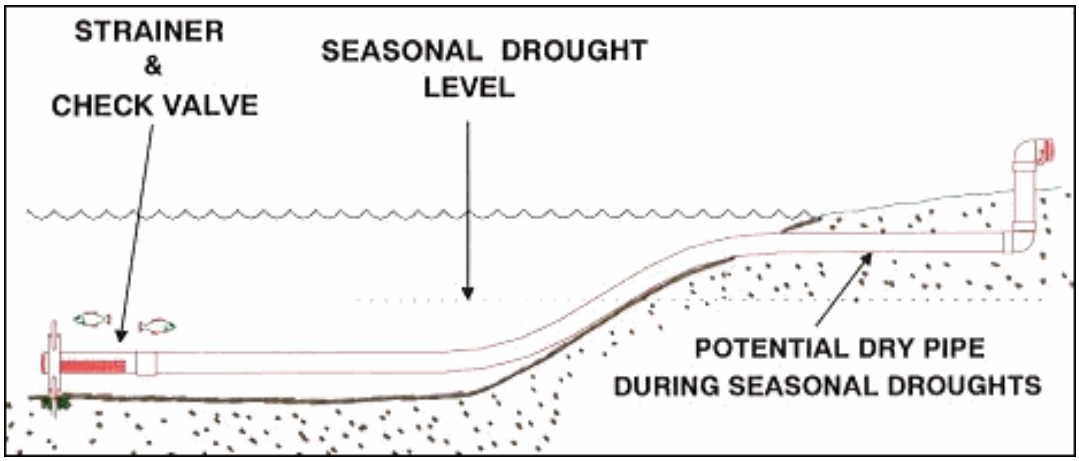
DRIVEWAY DESIGN AND ADDRESSING - ***As a means of improving emergency access and response, each municipality within the Region should adopt minimum driveway design standards that facilitate adequate emergency access and resist efforts to waive or vary from these safety-related standards. Such standards should require:***

- A minimum 10 foot-wide improved (paved or stone surface) cartway for single-use driveways and 16 feet for joint-use driveways;
- A paved apron connection with the public or private street that extends at least 25 feet off-of the road cartway and has a slope of no more than 8 percent;
- A minimum 12-foot high clear vertical path along the driveway between the road and all structures that is free of vegetation and other obstruction;
- A maximum driveway length of 600 feet for single–use driveways and 1000 feet for joint-use driveways; and,
- Posting of reflective road address number signs at all driveway entrances or turn-outs along joint-use driveways. On paved driveways reflective paint can

be used upon the driveway apron to portray the street address number as an alternative to reflective sign posting.

In addition, the County's improving GIS mapping database can provide each fire and ambulance company with emergency response mapping that clearly depicts every property and its address. As this database continues to evolve in the coming years, such maps can depict actual driveway and structure locations and aerial photographs. This can greatly assist in emergency response in rural areas that are difficult to negotiate at street level.

DRY HYDRANT INSTALLATION – Rural municipalities often lack readily-available sources of water for firefighting. Dry hydrants are permanently mounted pipes that are located at local sources of water (ponds and streams) that firefighters can readily access during times of emergency. Typically these hydrants are located alongside an improved public street about 10 feet away from the cartway. They appear as 5" PVC pipes extending out of the ground with suitable tap fittings. From here the pipes travel underground into the water source where strainers are used to keep them clear of debris and silt. Installation of these hydrants costs about $750 to $1000 and can be less if volunteer or Township excavating can be used. The installation of these hydrants can affect a reduction in homeowner insurance rates. Easements from private property owners need to be negotiated and recorded so that future conveyances of the property preserve the water access. In addition, prior to installation a permit would be required from the Centre County Conservation District. The following presents that permit process as described by the District:



"The installation of a dry hydrant in a pond, lake, stream, or other body of water is regulated by the Commonwealth of Pennsylvania, through 25 PA Code Chapter 105, also known as the Dam Safety and Waterway Management Rules and Regulations. As such, a permit would be needed to install these devices. The Centre County Conservation District has a delegation agreement with the Department of Environmental Protection to issue certain types of stream permits, known as General Permits, in Centre County.

"The installation of a Dry Hydrant could be done under GP-4, intake and outfall structures. To get coverage under this general permit, you would need to fill out a registration form, and a few other associated forms, and send the package to our office. There is a $25.00 fee associated with our review of an Erosion and Sediment Control plan for General permits. There is one exception: If the water body where you want to install the hydrant is classified as Special Protection (High Quality or Exceptional Value) by 25 PA Code, Chapter 93, then the project would not qualify for a General Permit, and a Water Obstruction and Encroachment Permit would be needed from the Department of Environmental Protection Regional office. We have a page on our web site dedicated to explaining these permits, and there are also links to the forms. Please go to:

http://www.co.centre.pa.us/conservation/streampermits.htm"[2]

DEVELOPMENT REVIEW - Rural configurations of land use often present impediments for local emergency response. To assist local fire and ambulance services it is recommended that a better system of development review should be engaged that provides local fire companies an opportunity to offer input on emergency-related design. Also improved "address posting" can facilitate better property identification during emergency response. Specifically, concerns over public and private road widths, turning radii, cul-de-sac lengths, fire hydrant placement and fire lanes are all issues that should be considered before a final subdivision/land development plan is approved. Furthermore, changes to use and occupancy of existing buildings can have profound effect upon the types of materials and activities that take place within a building. These changes should be communicated to local fire companies so that they are optimally prepared to respond to emergencies. The nearby Centre Region has developed and proposed a fire protection ordinance that could be adapted for use within the Penns Valley Region depending upon its specific requirements.

For all of these reasons it is recommended that the Region's Fire/Ambulance Chiefs work collectively with local officials to develop minimum design standards for road width, turning radii, cul-de-sac length, hydrant placement and fire lanes based upon local needs and equipment. Then these standards should be incorporated into local zoning and subdivision/land development ordinances. Any applications for variances or waivers to these standards should require a referral to the local fire chief for input prior to the decision on the matter. Also it is recommended that each municipality develop zoning regulations that compel the reporting of materials and waste handling practices as part of any zoning permit or use and occupancy permit. Then copies of this information should be provided to the local fire companies to aid in their emergency preparedness and response.

E. Municipal Government

This section provides a description of local government structure and function in the Region's seven municipalities. The role of local officials, boards, commissions, authorities, committees, and staff are set forth to provide an understanding of the hierarchy of local decision-making, input into these decisions, and the role of citizen involvement.

[2] Feb. 25, 2003 email from James R. Coslo Jr., CET, Resource Conservation Supervisor, Centre County Conservation District

CENTRE HALL BOROUGH

Office Address & Location: PO Box 54, 134 North Hoffer Avenue, Centre Hall, PA 16828 The office is located at the southeast corner of North Hoffer and Beryl Streets.

Office Phone Number - (814) 364-1772

Office Fax Number - (814) 364-2821

Office Hours: M-F: 8:00 a.m.–4:00 p.m.

Email Address: none

Description of Office and Facilities: Current 1½-story municipal building was originally configured with an office and garage in 1974. The office was expanded by 384 square feet in 1997. The garage underwent one expansion in 1986.

Municipal Staff: The Borough has two full-time maintenance staff and a full-time secretary.

Mayor: The Mayor is an elected 4-year position who has a seat at the Council table and provides input into the functions reviewed by the Council.

Borough Council: Borough Council is the elected governing body of the Borough. The 7-member Council meets regularly on the 2nd Thursday of the month, in the Borough Building. These regular public meetings begin at 7:00 p.m. In addition, Borough Council conducts special meetings on the last Monday of each month beginning at 7:00 p.m., also in the Borough Building. Each Council member serves a 4-year term, reviews issues involved in operating the municipality, addresses resident concerns and sets future policy standards. Each Council member also has assignments on various functional committees.

Planning Commission: Members are appointed by Borough Council for 4-year terms. The 5 members meet in the Borough Building on the first Monday of each month beginning at 7:00 p.m. The Planning Commission is an advisory board to Borough Council on matters of land use and community development.

Zoning Hearing Board: Members are appointed by Borough Council for 3-year terms. The 3 members meet in the Borough Building on an as needed basis. The Board reviews and acts upon requests for variances or special exceptions from the Borough Zoning Ordinance at the request of property owners.

Centre Hall – Potter Sewer Authority: This 5-member Board oversees the operation of the joint sewer system operated in the Borough and adjoining Potter Township. Members are appointed by their respective governing bodies and serve 5-year terms. The Board meets on the 3rd Tuesday of every month at the Potter Township Office.

GREGG TOWNSHIP

Office Address & Location: PO Box 184, Spring Mills, PA 16875. The current municipal building is rented and part of a coordinated development that sets on the south side of PA Route 45 just west of the Village of Spring Mills.

Office Phone Number - (814) 422-8218 or 8947 (shed)

Office Fax Number – (814) 422-8080

Office Hours: M, W, F - 8:30 a.m. to 2:30 p.m.

Description of Office and Facilities: The current municipal building contains a large meeting room (where the monthly meetings were held in developing this Comprehensive Plan) and a smaller file room. The building is ADA accessible.

Municipal Staff: The Township has a full-time paid roadmaster with 2 part-time road crew and a part-time secretary/treasurer.

Board of Supervisors: Board of Supervisors is the elected governing body of the Township. Each member serves six-year terms. The 3-member Board meets in the Municipal Building on the 2nd Thursday of each month, at 7:00 p.m.

Planning Commission: Members are appointed for 4-year terms. The 9 members meet in the Municipal Building on the 1st Monday of the month, at 7:00 p.m. The planning commission advises the Township Supervisors on matters of community planning, zoning and subdivision and land development.

Zoning Hearing Board: The 5 members are appointed for 5-year terms and meet on the 1st Thursday of the month as needed. They render decisions on applications for variances and special exceptions to the zoning ordinance.

Sewer Authority: This 7-member board serves 5-year terms.

HAINES TOWNSHIP

Office Address & Location: Mailing address - PO Box 244, Aaronsburg, PA 16820-0244. The office is located just off of PA Route 45 at the corner of Apple Tree Alley at 153 South Rachel's Way.

Office Telephone: (814) 349-8193

Office Fax: (814) 349-5630

Email: hainestwp@chilitech.com

Office Hours: Monday through Friday -8:00 a.m. to 4:00 p.m.

Description of Office and Facilities: The Township office is contained within one pole building constructed in 1973. One small office of 180 square feet serves as the Township meeting room. A second pole building was built in 1991 as the Township garage and road materials shed.

Municipal Staff: Staff currently consists of a full time Secretary / Treasurer, a full-time Road Superintendent and three part-time road crew.

Board of Supervisors: Board of Supervisors are the elected governing body of the Township. Members are elected for 6-year terms and elected at staggered two-year intervals. The 3-member Board regularly meets at the Township Office on the 4th Thursday of every month at 6:30 p.m., unless specified otherwise. Duties include governing and execution of legislative, executive and administrative powers to ensure sound fiscal management and to secure the health, safety and welfare of the citizens of the Township.

Planning Commission: Members are appointed for 4-year terms. The 5 members conduct their public meetings at the Township Office on the 1st Wednesday of each month at 7:00 p.m. Also the Planning Commission has another work meeting on the 4th Wednesday of the month at 7:00 p.m. The planning commission advises the Township Supervisors on matters of community planning, zoning and subdivision and land development. Also the Planning Commission works with Centre County's Agricultural Security Area Program.

MILES TOWNSHIP

Office Address & Location: 197 East Main Street, Rebersburg, PA 16872. The Township Office is located on the eastern edge of the Village of Rebersburg along the south side of PA Route 192.

Office Phone: (814) 349-8218

Office Fax: (814) 237-8330

Email Address: rbair@parentenet.com

Office Hours: By appointment

Description of Office and Facilities: The Township's office building contains one meeting room in a garage style building. The Township also has a separate garage located along the south side of South Street across from Middle Street within Rebersburg.

Municipal Staff: The Township has one part-time secretary / treasurer and another full-time employee.

Board of Supervisors: Board of Supervisors is the elected governing body of the Township. Members are elected for 6-year terms The 3-member Board meets at the Township Office on the 1st Thursday of each month at 7:00 p.m. Duties include governing and execution of legislative, executive and administrative powers to ensure sound fiscal management and to secure the health, safety and welfare of the citizens of the Township.

Agricultural Security Area Committee: Members are appointed by the Board of Supervisors to this 3-member committee who oversee the Township's Agricultural Security Area Program.

MILLHEIM BOROUGH

Office Address & Location: PO Box 421, 225 East Main Street, Millheim, PA 16854. The office is located on the east end of the Borough along the south side of PA Route 45.

Office Phone Number - (814) 349-5350

Office Fax Number - (814) 349-5733

Office Hours: M,T,Th,Fr: 8:00 a.m.–5:00 p.m.

Email Address: mbc@uplink.net

Description of Office and Facilities: Current municipal building was originally constructed as a school in 1930 and purchased by the Borough in 1975. It contains rooms for the following uses:

- Office of Penns Valley Code Enforcement Agency;
- Display of Borough artifacts;
- Borough Council meeting room;
- Borough office;
- 2 classrooms of Cen-Clear; and,
- Borough storage.

Municipal Staff: The Borough has four full-time staff as follows:

- Secretary / Treasurer;
- Sewer & Water Plant Operator;
- Sewer and Water Maintenance; and,
- Road and General Maintenance.

Mayor: The Mayor is an elected 4-year position who has a seat at the Council table and provides input into the functions reviewed by the Council.

Borough Council: Borough Council is the elected governing body of the Borough. The 5-member Council meets regularly on the 2nd Tuesday of the month, in the Borough Building. These regular public meetings begin at 7:00 p.m. Each Council member serves a 4-year term, reviews issues involved in operating the municipality, addresses resident concerns and sets future policy standards.

Planning Commission: Members are appointed by Borough Council for 4-year terms. The 5 members meet in the Borough Building on the 4th Tuesday of each month beginning at 7:00 p.m. The Planning Commission is an advisory board to Borough Council on matters of land use and community development.

Historic Architecture Review Board: Millheim Borough has implemented a new Historic District and has appointed an Historic Architecture Review Board (HARB) to assist in the review of projects within the defined district. More on this subject is contained on pages 55 & 56 of this Plan.

PENN TOWNSHIP

Office Mailing Address:
PO Box 125, Coburn, PA 16832

Office Telephone: (814) 349-8886

Office Fax: (814) 349-5525

Office Hours: Monday through Friday; 9:00 a.m.–4:30 p.m. at the secretary's residence (118 Tea Hollow Lane, Coburn, PA 16832)

Description of Office and Facilities: The Township is a one-story pole barn with large garage bay door. Adjoining is a road materials storage shed and recycling bins.

Municipal Staff: Staff currently consists of the following:

- Secretary / Treasurer;
- Roadmaster;
- Assistant Roadmaster;
- Code enforcement officer;
- Sewage enforcement officer;
- Alternate sewage enforcement officer;
- Water Operator; and,
- Assistant Water Operator.

Board of Supervisors: Board of Supervisors are the elected governing body of the Township. Members are elected for 6-year terms and elected at staggered two-year intervals. The 3-member Board meets at the Coburn Civic Club Building on the 1st Thursday of every month at 7:30 p.m. Duties include governing and execution of legislative, executive and administrative powers to ensure sound fiscal management and to secure the health, safety and welfare of the citizens of the Township.

Planning Commission: Members are appointed for 3-year terms. The 3 members meet on an as needed basis. The Planning Commission is an advisory board to the Board of Supervisors on matters of land use and community development.

POTTER TOWNSHIP

Office Address & Location:
124 Short Road, Spring Mills, PA 16875. The Township office is located on the north side of Short Road, a short distance west of PA Route 144 to the north of Potters Mills.

Office Telephone: (814) 364-9176

Office Fax: (814) 364-2809

Office Hours: Monday through Friday; 8:00 a.m.– noon & 1:00 to 5:00 p.m.

Description of Office and Facilities: The Township office consists of a one-person office plus an adjoining meeting room with a capacity of 37 persons. This building also houses 4 garage bays for road maintenance vehicles. In 2003 a 4-bay garage was built onto the small 2 bay building west of the office.

Municipal Staff: Staff currently consists of an appointed full-time secretary, full time road superintendent and 5 road crew.

Board of Supervisors: Board of Supervisors are the elected governing body of the Township. Members are elected for 6-year terms and elected at staggered two-year intervals. The 5-member Board regularly meets at the Township Office on the 1st and 2nd Mondays of every month at 7:00 p.m. Duties include governing and execution of legislative, executive and administrative powers to ensure sound fiscal management and to secure the health, safety and welfare of the citizens of the Township.

Planning Commission: Members are appointed for 4-year terms. The 7 members meet at the Township Office on the 1st Tuesday of the month at 7:00 p.m., except that in the month of November, the meeting is held on the 1st Wednesday when elections are held the 1st Tuesday of November. In addition, the Planning Commission conducts a work meeting on the 4th Tuesday at 7:00 p.m. also at the Township Office. The Planning Commission is an advisory board to Board of Supervisors on matters of land use and community development.

Zoning Hearing Board: The Board consists of 5 members, appointed to 5-year terms. The Board meets as needed. They render decisions on applications for variances and special exceptions to the zoning ordinance.

Centre Hall – Potter Sewer Authority: This 5-member Authority oversees the operation of the joint sewer system operated in Potter Township and adjoining Centre Hall Borough. Members are appointed by their respective governing bodies and serve staggered 5-year terms. The Authority meets on the 3rd Tuesday of every month at the Potter Township Office.

CENTRE COUNTY LIBRARY & HISTORICAL MUSEUM
203 North Allegheny Street

Location: 200/203 North Allegheny Street, Bellefonte, PA 16823.

Phone: (814) 355-1516

Fax: (814) 355-2700

Website: www.centrecountylibrary.org

Primary Service Area: The Centre County Library and Historical Museum is part of the Centre County Federation of Public Libraries. The mission of the Centre County Federation of public libraries is to provide the best library services to every resident of Centre County. The Federation was created in 1990 to improve library services through coordinated efforts among the public libraries in Centre County. It serves all municipalities within Centre County except State College Borough, and Patton, College, Harris, and Ferguson Townships.

Hours of Operation:

Main Library-200 North Allegheny Street
- Monday-Thursday - 9:00 a.m. to 8:00 p.m.
- Friday & Saturday - 9:00 a.m. to 5:00 p.m.
- Sunday-Closed

Video Department-203 North Allegheny Street
- Monday-Thursday **-** 9:00 a.m. - 6:00 p.m.
- Friday - 9:00 a.m.-5:00 p.m.
- Saturday - 9:00 a.m.-Noon and 1:00 p.m.-5:00 p.m.
- Sunday-Closed

Pennsylvania Room (Local History and Genealogy)-203 North Allegheny Street
- Monday-Friday - 9:00 a.m.-5:00 p.m.
- Saturday - 9:00 a.m.-Noon and 1:00 p.m.-5:00 p.m.
- Sunday-Closed

Historical Museum-203 North Allegheny Street
- Monday-Friday - 9:00 a.m.-5:00 p.m.
- Saturday & Sunday-Closed

Available Resources and Services: The Centre County Library has books for all ages, current best sellers, large print books, magazines & newspapers, books on tape & CD, music compact disks, videocassettes (both entertainment and non--fiction), DVD movie disks, telephone books, information services, interlibrary loan, story hours & children's activities, summer reading programs, computers for public use with free Internet access, assistive technology for the visually challenged, Library of Congress access, public meeting rooms, and expert staff to help you.

The Centre County Library Historical Museum and remains an integral part of the library operation. The Pennsylvania Room houses an extensive collection of published and manuscript items relating to local history and genealogy and also features three rooms of historical exhibits

relating to Centre County. The library's entertainment video department and administrative offices are also located in the museum building.

Bookmobile: The mission of the Centre County Bookmobile is to provide educational, recreational, and cultural library materials and services to enrich the lives of citizens who may not have access to a formal library facility due to a variety of limitations, including geographic, economic, physical, and institutional limitations, or other barriers.

The Bookmobile is a free public library service to anyone living or working in Centre County. Scheduling consideration is given to those areas not having a conventional library facility and/or to captive audiences, such as retirement homes, senior citizen centers, daycares, preschools, charter schools, and rehab centers.

This service has been provided since 1942 and employs two full-time drivers. The Bookmobile makes seven stops in the Penns Valley Region.

Personnel: This agency consists of one administrator, 3 professional librarians, 7 full-time and 5 part-time staff

Facilities Inventory (Bellefonte): 151,052 library materials, 6 computers for public use, and 22 computers for staff use

Major Problems: Lack of space in current building and lack of room for expansion. Aging plumbing and electrical systems. The Centre County Library Board has conducted a space needs analysis to determine what amount of space the library needs to have a properly functioning space for the future. The Board is now examining options of renovating the current building, moving to another location, or building around the current museum building.

2004 Regional Contributions:

Gregg Township	$0.00
Haines Township	$250 (to the Friends of the Library)
Miles Township	$0.00
Penn Township	$0.00
Potter Township	$1,000.00
Centre Hall Borough	$2,000.00
Millheim Borough	$250.00

% of Total contributions received from Centre County municipalities is 5%.

State aid accounts for 23% of the Library's budget. Centre County Government contributes monies which add up to 33% of their budget, and the United Way's allocation is 3%.

AARONSBURG AREA PUBLIC LIBRARY

Location: 114 West Plum Street, Aaronsburg, PA 16820

Phone: (814) 349-5328

Fax: (814) 349-5288

Website: http://www.centrecountylibrary.org/abg.htm#loc

Primary Service Area: The Aaronsburg Area Public Library is a branch library of the Centre County Library System. It serves the residents of Haines Township and Millheim Borough.

Hours of Operation:

- Monday & Thursday-1:00 p.m.-8:00 p.m.
- Tuesday- 10:00 a.m.-5:00 p.m.
- Wednesday-4:00 p.m.-8:00 p.m.
- Friday-1:00 p.m.-5:00 p.m.
- Saturday-11:a.m.-2:00 p.m.
- Sunday-Closed

Available Resources and Services: Same as County Library.

Personnel: This library has a full-time branch manager and two part-time staff persons.

Facilities Inventory: 14,217 materials, 4 public computers, and 4 staff computers.

Major Problems: The Aaronsburg Area Library Association (AALA) is seeking a new space for the library. The AALA has done a community survey, looked at various properties, and is now in preparation for a fund drive.

Contributions:
Local fundraising, comprising one third of the Branch Libraries operating budgets, includes special events such as golf tournaments, bake sales, spaghetti dinners, hoagie sales, and races. Support from the communities within the service areas of the local Branch Libraries is essential to the overall operation of these facilities.

Total operational budget	$73,224
Haines Township	$1,000 Paid to AALA
Millheim Borough	$250 Paid to AALA
Other:	
(AALA)	$5,795 (2004)
Gifts	$3,781
Fines/fees	$3,048

CENTRE HALL AREA PUBLIC LIBRARY

Location: 109 West Beryl Street, Centre Hall, PA 16828

Phone: (814) 364-2580

Fax: (814) 364-2598

Website: http://www.centrecountylibrary.org/chall.htm

Primary Service Area: The Centre Hall Area Public Library is a branch library of the Centre County Library System. It serves the residents of Centre Hall Borough and Potter Township.

Hours of Operation:

- Monday, Wednesday & Friday-10:00 a.m.-5:00 p.m.
- Tuesday & Thursday- 3:00 p.m.-8:00 p.m.
- Wednesday-4:00 p.m.-8:00 p.m.
- Friday-10:00 a.m.-5:00 p.m.
- Saturday-11:a.m.-2:00 p.m.
- Sunday-Closed

Available Resources and Services: Same as County Library

Personnel: This library has a branch manager and two other part-time staff persons.

Major Problems: None

Contributions:

Local fundraising, comprising one third of the Branch Libraries operating budgets, includes special events such as golf tournaments, bake sales, spaghetti dinners, hoagie sales, and races. Support from the communities within the service areas of the local Branch Libraries is essential to the overall operation of these facilities.

Total operational budget:	$88,210
Centre Hall Borough	$ 2,000
Potter Township	$ 250
Other:	

Centre Hall Branch Library Association (CHABLA) $15,877
(Includes $10,00 annual mortgage payment. In 2004, the Association actually paid $25,877 because they received a $10,000 gift which was put towards the mortgage principal.)

CENTRE COUNTY GOVERNMENT

Bellefonte as the County seat for Centre County, is home to many of the offices associated with county government. The Centre County Board of Commissioners oversees legislative functions of the County.

Address: Willowbank County Office Building, 420 Holmes Street, Bellefonte, PA 16823-1488

Hours: Monday through Friday, 8:30 a.m. to 5:00 p.m.

Telephone: (814) 355-6791

Fax: (814) 355-6980

TDD: (814) 355-6768

Website: www.co.centre.pa.us

Departments: The following lists those departments of the Centre County Government as listed on its webpage.

Adult Services	Elections	Records Management
Aging	Emergency Communications/911	Register of Wills & Clerk Orphan's Court
Centre Crest	Emergency Services	Sheriff
Children & Youth	Housing Authority	Tax Assessment
Commissioners	Human Resources	Tax Collection/Tax Claim
Controller	Maintenance	Transportation
Conservation District	MH/MR/D&A	Treasurer
Cooperative Extension	Planning	Veterans' Affairs
Coroner	Prison	Weights & Measures
Court Administration	Probation and Parole	
Criminal Justice	Prothonotary and Clerk of Courts	
District Attorney	Public Defender	
District Justices	Recorder of Deeds	

THE MEADOWS PSYCHIATRIC CENTER

The Meadows Psychiatric Center, a 101-bed private behavioral health care facility on a 52-acre rural campus, is located minutes outside State College in Central Pennsylvania. As an integrated behavioral health care delivery system, the Meadows Psychiatric Center provides comprehensive services to children, adolescents, adults and older adults on the main campus in Central Pennsylvania.

The Meadows Psychiatric Center is part of Universal Health Services, Inc. a national health care provider with a reputation for providing the highest quality of care and service. The Meadows Psychiatric Center has been accredited by the Joint Commission on the Accreditation of Health Care Organizations (JCAHO) and is licensed by the Commonwealth of Pennsylvania Department of Public Welfare (DPW). [3]

Address: 132 Meadows Drive, Centre Hall, PA 16828

Hours: 24-hour

Telephone: 814-364-2161

[3] Source: The Meadows Website (http://www.themeadows.net)

Website: www.themeadows.net

MOUNT NITTANY MEDICAL CENTER

Mount Nittany Medical Center is a non-profit, 200-bed acute care facility that has served Centre County since 1902. The Hospital is dedicated to delivering high quality care and service to every patient, every day. Mount Nittany Medical Center is accredited by the Joint Commission on Accreditation of Healthcare Organizations and is licensed by the Pennsylvania Department of Health. With 960 employees and 185 physicians, it is one of the larger employers in Centre County.[4]

PENNS VALLEY AREA HISTORICAL MUSEUM

The Penns Valley Area Historical Museum is a nonprofit educational organization whose mission is to discover, collect, preserve, interpret and present prehistoric, historical and cultural heritage of the people of the Penns Valley and Brush Valley regions. The Association will accomplish this by maintaining a collection of artifacts, providing a research and genealogical library, developing and presenting educational programs and publishing supportive literature.

In April 2003 the Museum purchased the D. Sparr Wert House on the southwest corner of the Fall Festival Grounds in Aaronsburg. This site houses a two-story 1817 log home with approximately 2400 square feet, a cobbler shop a smoke house and two barns in the back. This site has ample space to preserve the Museum's 2000+ artifacts and host various events and programs.

Address 244 West Aaron Square, Aaronsburg, PA 16820

Website: www.pennsvalleymuseum.org

PENNS VALLEY AREA MEDICAL CENTER, PC

Built in the early 1970s, the Penns Valley Area Medical Center started its early beginnings by providing general practice medical and dental services to the residents of Penns Valley. Since then, the Center has grown and now offers optometry services. In addition, the Penns Valley Pharmacy which is independently operated is also situated on the Medical Center's campus.

The two buildings housing the Penns Valley Medical Services are owned by the Penns Valley Medical Association, a community not-for-profit organization. The medical practices are separately owned by the physicians.

An expansion of the main medical building occurred in the 1990s. At this time there are no plans for future expansion of this facility.

Address: 4570 Penns Valley Road, Spring Mills, PA 16875

Telephone: 814–422–8873

[4] Source: Mount Nittany Medical Center Website (http://www.mountnittany.org/)

VIII. Public Utilities

The Penns Valley Region has a long history of public water systems; several of the Region's water systems date back more than a century. However, the sewer systems have been installed more recently. And like these original systems, today's systems generally still serve their small tightly-knit communities. This is an unusual trend as many of today's utilities systems extend well beyond the confines of compact neighborhoods and across open countryside. But the Penns Valley Region has largely been spared from the mass suburban migration of residences experienced over the last half-century. Nonetheless, local officials understand that they must take positive action to prevent suburban growth and hope to target growth within compact utility service areas and away from valuable outlying natural and cultural features.

It is further the goal of this plan to present a unified and coordinated set of utility planning policies that can translate across municipal and authority boundaries. This statement of policy will be more of a grand overall strategy that can identify areas to be served and projected demands and guide the more detailed and operational designs required to carry-out utility construction and service. Utility planning contained herein will also abide by the overall community development goals established for this Comprehensive Plan rather than the more narrow goals usually associated with detailed utility planning and engineering. More simply stated this plan will not allow for utility planning to dictate overall community form, but will be an important consideration among all of the Region's resources and needs.

A. PUBLIC SEWER SERVICE

Presently public sewer service is provided within the Penns Valley Region by the following five agencies:

- Centre Hall – Potter Sewer Authority;
- Country Club Park Sewer System;
- Gregg Township Sewer Authority;
- Millheim Borough; and,
- Penn Township (proposed system).

These agencies respective facilities and service areas are depicted on the Public Sewer Map.

The largest of these systems, the **Centre Hall-Potter Sewer Authority** (CHPSA) serves Centre Hall Borough and adjoining areas of Potter Township principally east of the Borough and along Routes 45 and 144. However, this system has specifically accommodated various outlying developments within Potter Township. The CHPSA is comprised of three appointed officials from Centre Hall Borough and two members from Potter Township. It currently operates under the Official Sewage Plan (Act 537 Plan) of 1992.

This system was brought-on-line in 1997 to overcome a high incidence of malfunctioning on-lot sewage systems in and just outside of the Borough. It includes about 62,000 feet of sewage collection lines with a 280,000 gallons per day (gpd) sequencing batch reactor treatment plant with ultraviolet disinfection that outfalls to a wetland adjoining Sinking Creek. This system was designed to correct existing needs and accommodate moderate growth in this locale.

In the year 2003 this system served 1118 equivalent dwelling units (EDUs) among residential, commercial, industrial and public land uses with an average daily treatment flow of about 120,000 gpd. For one week per year this system adds about 100 EDUs (25,000 gpd) associated with the Centre County Grange Encampment and Fair. The treatment plant has an average daily treatment capacity of 280,000 gpd and can be easily expanded to accommodate 350,000 gpd; therefore, this system has abundant residual treatment capacity.

Centre Hall – Potter Sewer Authority Treatment Plan

Millheim Borough operates the second largest public sewer agency within the Region. This system is operated under direct control by the Borough Council through its wastewater treatment plant operator. The wastewater treatment plant was completed in 1995 and serves only properties within the Borough. Today the system consists solely of gravity flow collection lines that flow to the trickling filter plant with a rated capacity of 100,000 gpd. In 2003, the average daily flow was about 87,000 gpd; therefore, residual capacity is calculated to be about 51 EDUs. However, other factors further limit the system's effective capacity. First, the system is subject to infiltration and inflow problems; however, monitoring is being conducted to identify the source of these problems.

Second according to the Borough's engineer, this plant does not function as well as it was designed. Frequently the plant fails to comply with DEP effluent standards and is likely to require improvement during the time frame of this Plan. Complicating this matter is the recent designation of the Elk Creek as an exceptional value cold water fishery. This state-protected water will impose anti-degradation water quality standards that will require a tertiary level of sewage treatment prior to stream discharge. This level of treatment is very expensive, particularly when applied to such a relatively small system as would be indicated in the Millheim vicinity.

The planning goals for this plan call for growth to be targeted into compact development areas with public utilities and services in each of the Region's municipalities. Furthermore, the Borough has considerable vacant undeveloped land that shares the same attributes as its neighboring properties that have been developed in a tightly-knit and urban setting. The development potential of these properties require that the Borough provide adequate infrastructure so as not to unreasonably restrict their use. All of these factors suggest that the Borough begin to plan for system improvement and likely expansion.

Given the Borough's location adjoining Haines and Penn Townships, it makes sense to involve these two neighbors in this effort. The nearby Village of Aaronsburg, too, will need public sewers within the time frame of this plan. Malfunctioning on-lot sewage disposal systems are common in this tightly-knit community and if local history is any indicator, DEP will require remedial attention to this condition in the foreseeable future. On the west end of Millheim Borough, Penn Township could also offer some areas to share in the Region's economic growth and development and should offer public utility service accordingly. The addition of remedial connections from Aaronsburg, and new connections from growth in both Haines and Penn Township, could all help to improve the economies of scale necessary to build a "state-of-the-art" tertiary sewage treatment plant serving the greater Millheim/Aaronsburg area without forsaking the water quality of the Elk Creek.

Millheim Borough Wastewater Treatment Plant

Another option worth exploring would be the development of a land-based treatment plant that would not rely upon stream discharge. Spray irrigation, drip irrigation, wetland lagoon and other land based technologies are gaining widespread acceptance within the state as an environmentally friendly alternative to costly stream discharge technologies.

The **Gregg Township Sewer Authority (GTSA)** is administered by a 5-member volunteer board with part-time assistance from a local plant maintenance team and bookkeeper. This system went on-line in 1999 as a result of a federal mandate to serve an area delineated by the former Farm Home Administration, now replaced by Rural Utilities Service. The system operates under the 1988 Act 537 Plan with subsequent amendments approved for specific developments.

Today gravity collection lines within the Village of Spring Mills gather waste which is then pumped about 1 mile east to the sewage treatment plant located on Kline Road. Other gravity lines also collect waste from a mobile home park on Kline Road and users to the north along PA Route 45. The GTSA uses a dual aerobic batch treatment plant with a rated capacity of 100,000 gpd; it outfalls to the Penns Creek. The plant was designed to meet the demands of Spring Mills and Penn Hall.

In 2003, the system recorded flows of about 48,000 gpd. The flows were closely split between residential and nonresidential EDUs. The system suffers from inflow during periods of rain that can cause the system to exceed its rated capacity. The system is constrained by the DEP-mandated stream discharge limit (90,000 gpd). Occasionally the system exceeds this limit during periods of rain but DEP is aware of this condition and has told officials that an occasional excessive discharge is acceptable. The GTSA hopes to initiate a campaign of site investigations to locate and disconnect any domestic sumps and

gutters that are discharged into the sewer system. The GTSA president also believes that a line cleaning maintenance program needs to be implemented.

According to the GTSA engineer, the systems effective residual capacity is about 52,000 gpd or enough for about 208 EDUs. An additional 25 EDUs are available due to a proposed reduction of industrial flows by Gettig Industries and several other properties that have become vacant since the sewers were activated.

Penn Township is actively pursuing the creation of a new sewage system in response to its latest Act 537 Plan completed in the late 1990s. Specifically the Plan calls for the use of a public sewer system to overcome widespread malfunctioning on-lot sewage systems in the Village of Coburn. Presently, the design of the project has been approved by DEP. Also, it has received funding via a Pennvest grant totaling $872,044 and another Pennvest loan for $474,507.

With this funding the monthly user rates would average about $57 per month and local officials hope to secure additional funding to lower these rates to about $45 per month. Federal Community Development Block Grant funds are being sought. A prerequisite for application for these funds is tied to demonstrated need and service to communities with low-to-moderate incomes. Penn Township has been preparing the background information to demonstrate this need and apply. It is anticipated the local officials will be notified by the end of 2004 about the status of this application.

Should this system be developed it will have limitations designed to make it primarily a remedial system aimed at relieving the malfunctioning on-lot sewage disposal systems. Its total treatment capacity will be 25,000 gpd using extended aeration and UV light disinfection. This will serve the roughly 87 homes in this vicinity with very little residual capacity. Average daily flows are based upon 280 gpd per EDU.

Within **Potter Township is the Country Club Park** subdivision. This development originally installed a "used" private package treatment plant to serve its 26 homes in the late 1970s. The plant was designed with greater capacity than was necessary to serve the 26 homes; however, the age and condition of the plant limits its effective capacity to the existing subdivision. Subsequently the owner defaulted and DEP forced Potter Township to assume responsibility for the system. Any expansion of this system would require replacement of the treatment plant and Township officials hope to avoid the extension of public sewers into the adjoining agricultural area. There have been discussions about connecting this system to the Centre Hall – Potter Sewer system if lines are extended to the nearby Meadows facility; however, nothing formal has been approved.

Characteristics of the Public Sewer Systems of the Penns Valley Region

Sewer System	Centre Hall - Potter	Country Club Park	Gregg Township	Millheim Borough	Penn Township[4]
Service Area	Borough & adjoining Township	Subdivision inPotter Twp.	Spring Mills, Kline Road MHP & Rte. 45	Millheim Borough	Coburn[4]
2003Treatment Capacity (gpd)	350,000 (avg) 875,000 (peak)	35,000	100,000 gpd	100,000 gpd	25,000 gpd[4]
Treatment processes	Sequence batch reactor with UV disinfection and wetland filtration.	NA	Dual aerobic batch treatment tank with stream discharge	Trickling filter	Extended aeration with UV disinfection[4]
2003 Flows/gpd	120,000[2]	6,000	48,000 gpd	87,000 gpd	0
Residential	935 – 105,250 gpd	28	154	299 – NA	87 proposed[4]
Commercial	45-11,250 gpd	0	0	41 – NA	0
Industrial	12 – 3,250 gpd	0	135	1 – NA	0
Public	100 – 6,500 gpd	0	0	0	0
Gpd / EDU	250	214	156	255	280[4]
Residual Capacity	205,000 gpd	0	52,000	13,000 gpd	0
Residual EDUs[1]	820	0[3]	233	52	0
Issues		Age & condition of plant	Limited funding, & personnel, discharge limits,	I & I problems. Plant performance. Elk Cr. designated as exceptional value.	High monthly user fees, Need for grant.

[1] These figures assume a per unit consumption of 250 gpd.

[2] For one week per year this system adds about 100 EDUs (25,000 gpd) associated with the Centre County Grange Encampment and Fair.

[3] This lack of residual capacity relates to the age and condition of the treatment plant.

[4] This system is proposed and has not yet been constructed.

FUTURE PUBLIC SEWER NEEDS

The overall regional goals of this plan are quite clear that additional public utilities will be confined to serve compact future growth areas around existing service areas. Also, reductions of state funding for the operation of local sewer systems have negatively affected the finances of the Region's public sewer systems. Operators are eager to connect new EDUs as a means of improving system cost efficiency and managing monthly user fees at acceptable levels. Both of these factors contribute to the importance of aligning future land use policies with the availability of public sewers.

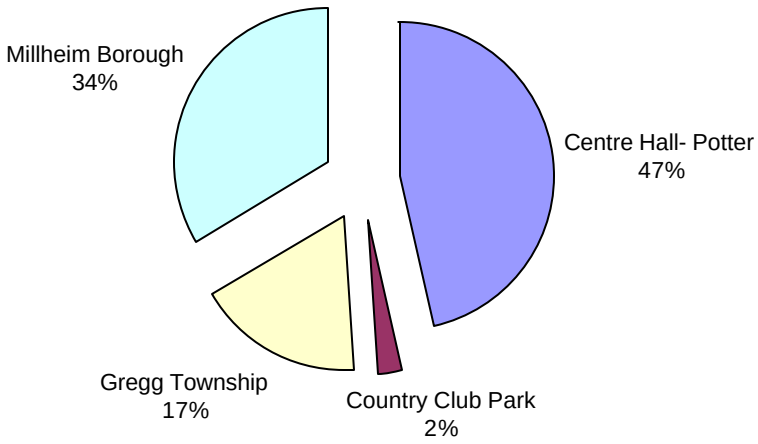
To project future sewage flows it is first important to understand current flow conditions within the Region. The following tabulates reported sewage flows combined throughout the Region's five public sewage systems.

Year 2003 Public Sewage Generated (Region-wide)			
System	**No. of EDUs**	**Total Gallons Generated per Day (gpd)**	**Generation / EDU**
Centre Hall- Potter	1092	120,000	110 gpd
Country Club Park	28	6,000	214 gpd
Gregg Township	289	48,000 gpd	166 gpd
Millheim Borough	341	87,000 gpd	255 gpd
Penn Township*	0	0	0
Regional totals	1750	261,000 gpd	149 gpd

*This system is proposed and not yet operational.

As can be seen, existing flows total 261,000 gpd. Of this the Centre Hall – Potter systems serves nearly half of the total effluent treated in public sewer systems of the Region. Millheim Borough account for slightly more than 1/3 of the regional flow.

Public Sewage Flows
Year 2003



Of the Regions total 4467 occupied housing units in year 2003 (based upon calculations derived from statistics and projections contained in Chapter IV) one-fourth of all occupied housing units (1117 units) are connected to public sewers within the Region. This residential flow totals 211,528 gpd and accounts for about 82 percent of the total effluent treated in public sewer systems. This suggests an average per unit generation of 189 gpd. Accordingly, nonresidential flows total 46,472 gpd and amount to 18 percent of

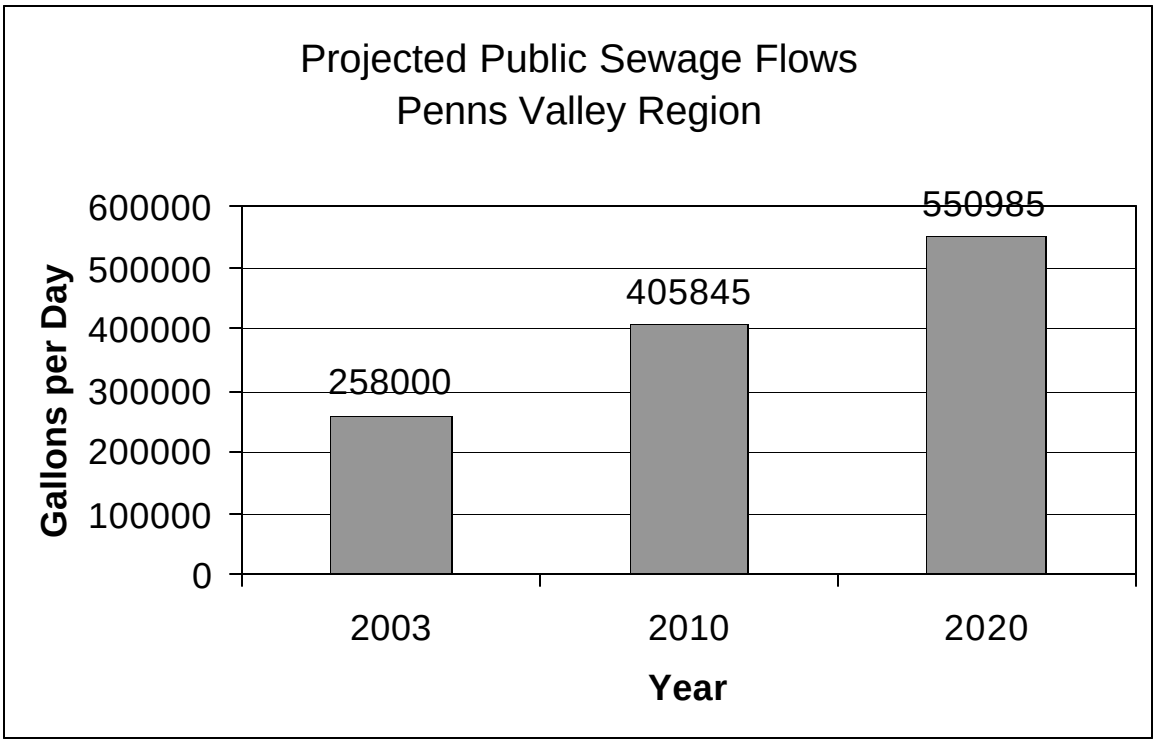
the flows through the Region's public sewer systems. Nonresidential uses generate on average about 139 gpd.

To project future sewage flows several assumptions must be made as follows:

1. As presented in Chapter IV of this Plan (Demographics) the Region will grow by 864 persons per decade between 2000 and 2020;
2. As presented in Chapter IV of this Plan (Demographics) the Region will grow by 819 housing units per decade between 2000 and 2020;
3. In response to goals of this plan that call for targeting growth into public utility service areas, the ratio of new residential uses within public sewer service will increase from 25% in 2003 to 60%;
4. The current ratio of flows for residential, and non-residential uses will be maintained in the future; and,
5. The average daily flow generated per new EDU is 250 gallons.

With these assumptions it becomes possible to project the amount of public sewage capacity needed to accommodate future growth. The following table presents this information:

Projected Public Sewage Flows 2003 to 2020 Attributed to New Growth				
Year	**Projected new dwelling units served by public sewer (60%) of total**	**Projected sewer flows from new residences (250 gpd/unit)**	**Projected nonresidential flows (18% of total growth)**	**Projected total flows**
2003	NA	211,528 gpd (existing)	46,472 gpd (existing)	261,000 gpd
2010	491	122,750 gpd	22,095 gpd	405,845 gpd
2020	983	245,750 gpd	44,235 gpd	550,985 gpd



New growth within the Penns Valley Region is projected to generate about 550,985 gpd of public sewage effluent by the year 2020. This amounts to an increase of 289,985 gpd or a 112 percent increase above existing sewage flows. Today the Region has residual capacity of about 260,000 gpd. or about 30,000 gpd below that needed to accommodate projected new growth. It is important to understand that this projection only relates to new growth within the Region. Any sewage capacity needed to accommodate remedial service areas of malfunctioning on-lot sewage disposal systems (eg. Aaronsburg, Coburn) would add to this total.

While the Region has nearly enough sewage capacity to meet the Region's projected growth, most of this capacity is located in the Centre Hall – Potter service area. This would mean that most of the Region's growth would have to be targeted to that area. Such a policy would conflict with the Plan's goal to disperse the Region's growth among each of its municipalities. Either the other municipalities must provide additional sewage capacity or growth will be limited outside of the Centre Hall – Potter service areas.

Regardless, the Region's sewage treatment plants will likely exceed their rated capacities in year 2017-2018 if growth occurs steadily throughout the period. Obviously growth doesn't occur with such predictability and it takes considerable time to expand a sewage treatment plant or develop other treatment alternatives. For this reason it is recommended that the Region initiate a long-range public sewage treatment strategy with some urgency. Specifically, Haines and Miles Townships should explore the creation of new public sewer service, while Millheim Borough and Penn Township should cooperate to offer additional service within the vicinity of the Borough. These could also be accomplished though the preparation of a regional Act 537 Plan among any of the four affected municipalities.

But most of the Penns Valley Region will continue to rely upon on-lot sewage disposal systems. For these systems to remain effective over time, they must be properly maintained. Recent studies suggest that the regular pumping out of septic tanks is imperative to system effectiveness***. Therefore it is recommended that each Township adopt an on-lot sewage disposal system management program and ordinance that requires the periodic cleaning and, if necessary, replacement of such systems to protect the public health and groundwater quality. Township Officials might also wish to require future developers to provide sufficient lot area for an initial and tested "back-up" on-lot sewage disposal system. This can ensure that future land uses have adequate sewage disposal without the need for costly public utility extensions that can act to induce additional urban development in areas reserved for rural use.***

B. PUBLIC WATER

Today public water service is provided within the Penns Valley Region by the following nine agencies:

- Aaronsburg Waterpipes Incorporated;
- Centre Hall Borough Water Department;
- Country Club Park Water System;
- East Haines Township Water Company;
- Madisonburg Water Works;
- Millheim Borough Water Company;

- Penn Township Water District;
- Rebersburg Water Company; and,
- Spring Mills Water Association.

These agencies respective facilities and service areas are depicted on the Public Water Map. A brief narrative description of each system is provided as follows along with a summary table of important system characteristics.

Aaronsburg Waterpipes Incorporated (AWI) – The AWI was created in 1829 by a special Act of the State Legislature to serve the Village of Aaronsburg. Today this agency still limits its service within close proximity to the Village. The AWI is governed by a 5-member board who are appointed to 3-year terms by the Haines Township Board of Supervisors. The AWI meets once each month on the 1st Monday at 7:00 p.m. at the Haines Township Municipal Building.

Upgrades to the system were completed in 2003 and included a new well, storage tank and treatment plant. Presently the system relies upon 1 600-feet-deep well that yields 43,200 gpd. Also two springs have long provided water for the system with yields of 115,200 gpd or more, depending upon local precipitation. All sources are GUDI and require filtration. The new treatment plant has a capacity of 72,000 gpd and uses diatomaceous earth filtration, caustic soda for alkalinity balance and sodium hypochlorite for disinfection. The new storage tank replaces all older storage facilities and has a total capacity of 182,000 gallons; its location affords sufficient water pressure to serve the entire distribution system with gravity flow. The distribution system contains one pressure reducing valve pit to reduce pressure in lower lying areas of the system. According to the PA DEP Drinking Water Reporting System website, the AWI has 2700 feet of 6-inch diameter cast iron gravity distribution lines that were installed before 1930.

In 2003 the system had 209 total customers, only one of which was a commercial use with the balance serving residential uses. The estimated consumption was 40,000 to 50,000 gpd. No breakdown by land use category was provided but the average consumption per connection was 191 to 239 gpd.

Local representatives describe the system's challenges to include inadequate main diameter for fire protection flows, and old leaking mains with high water loss.

Centre Hall Borough Water Department (CHBWD) – The CHBWD operates the largest water system within the Region serving 731 customers or about 39 percent of the 1862 total public water customers within the Region. This system serves all of the Borough and portions of Potter Township along PA Routes 45 and 192. The system relies upon the following three sources:

Well Name	**Safe Yield (gpd)** **48-hour test**
Homan Well # 8	396,000 (permitted capacity)
Homan Well # 9	432,000
Homan Well #11	576,000

The system's primary treatment plant uses chlorination as a disinfectant and has a maximum design and operational capacity of 635,000 gpd.

The system has one new storage tank with a capacity of 492,000 gallons for finished water.

The CHBWD has a distribution system comprised of lines with the following characteristics:

Centre Hall Borough's reservoir

Distribution Lines of the CHBWD			
Line description	**Length (ft.)**	**Line description**	**Length (ft.)**
1" copper	560	6" ductile iron	11,316
2" or less galvanized	6,182	6" AC	NA
2" or less cast iron	1,050	6" cast iron	13,138
4" PVC	1,770	8" ductile iron	2,427
4" ductile iron	994	8" cast iron	2,170
4" AC	3,145	12 ductile iron	7,946
4" galvanized	1,410	12" cast iron	230
4" cast iron	22,369	16" cast iron	300
6" VCP	910	24" ductile iron	466

In 2004 the CHBWD served 731 customers with an average of 332,000 gpd; therefore, the per unit consumption was 455 gpd.

Country Club Park Water System (CCWS) – This small community system is located in the northwest corner of Potter Township on the north side of PA Route 45. This system serves the 28 homes within the Country Club Park subdivision. The CCWS relies upon 2 wells. The first well is surface water influenced and has a safe yield of 21,600 gpd. A newer well is not surface water influenced and has a safe yield of 64,800 gpd. Two treatment plants also serve this system. The first older plant has a maximum design capacity of 64,800 gpd while the newer replacement plant has a rated design capacity of 21,600 gpd. Four storage tanks offer capacity of 8000 gallons. Distribution lines are 4-inch diameter lined ductile iron with pumped flow. In 2003 the average daily consumption was 7000 gpd among the developments 28 homes with a per unit use of 250 gpd.

East Haines Township Water Company (EHTWC) – The EHTWC serves the Village of Woodward and several nearby attractions. It relies upon two surface-water-influenced springs with a combined maximum safe yield of 53,000 gpd. A treatment plant was

constructed during the 1980s which uses chlorine to disinfect water, with a design capacity of 50,000 gpd. A spring storage building built in the 1960s has raw water storage capacity and a newer underground fiberglass tank holds the systems finished water; together these storage devices have 40,000 gallons of capacity. The system uses 8-inch lined ductile iron distribution lines that flow by gravity and were installed in the 1980s. In 2003 the average daily consumption was 29,820 gpd among its 77 customers. No breakdown by land use category is available; therefore, the per customer consumption is calculated at 387 gpd.

Madisonburg Water Works (MWW) - The MWW was created in 1830 by Act 109 of the State Legislature to serve the Village of Madisonburg. Today this agency still limits its service within close proximity to the Village. Service areas include Main, East and West Streets and Leisure Lane. The MWW is governed by a 7-member board who are appointed to 4-year terms by the Miles Township Board of Supervisors. The MWW meets once each month on the 1st Monday at the Madisonburg Civic Club Building.

The MWW currently relies upon 8 springs located in the mountains north of the Village; these sources are capable of producing 35,000 gpd or more. However, these springs are directly influenced by surface waters so the MWW is in the process of developing a new well with a rated yield of 22,000 gpd. The treatment plant chlorinates water and has a rated design capacity of 25,000 gpd. An enclosed reservoir on the north end of the Village has a capacity of 20,000 gallons. Water flows by gravity from the source and reservoir throughout the Village.

MWW's distribution lines consist of 6-inch PVC the entire length of town. A 6-inch PVC main extends to serve East Street and a 2-inch PVC line extends to serve West Street. The main along Leisure Lane is 6-inch transite pipe which the MWW hopes to replace with grant funding.

According to local officials year 2003 consumption averaged 12,000 gpd among 78 residences and 3 commercial connections. Therefore average per unit consumption is 148 gpd.

Millheim Borough Water Company (MBWC) – The MBWC was assumed by the Borough in 1943. At that time it served 242 customers within Millheim and 12 customers within Penn Township. Today the system still limits its service within close proximity to the Borough. The MBWC is governed by the 5-member Borough Council whose members serve 4-year elected terms. The Borough Council meets the 2nd Tuesday of each month at 7:00 p.m. in the Borough Council Building, 225 East Main Street.

The MBWC's sources include a primary surface water withdrawal from Phillips Creek up to a maximum of 180,000 gpd and a secondary surface water withdrawal from Elk Creek also up to 180,000 gpd. The pumping capacity at the Elk Creek site and the system's filtration plant are 288,000 gpd each.

In 1995 a 1.3 million dollar project was undertaken to add a filtration plant, water storage tank and meters to all customers. The treatment plant uses chemical treatment and coagulation, mechanical flocculation, sedimentation and filtration and has a design capacity of 288,000 gpd. The system has two storage devices a newer tank which holds 212,000 gallons and a older 1,000,000-gallon reservoir.

The MBWC has a distribution system comprised of lines with the following characteristics:

Distribution Lines of the MBWC					
Diameter	**Length**	**Material**	**Type**	**Lined**	**Install Date**
12 inch	2,000 feet	PVC	Pumped	No	1990s
6 inch	8,000 feet	Cast iron	Gravity	No	Pre 1930
4 inch	15,000 feet	Cast iron	Gravity	No	Pre 1930

Local officials explain that fire-fighting pressures will be improved as replacement lines are installed in select areas. In 2003 the average daily consumption was 51,433 gpd among 323 residential, 44 commercial and 1 industrial users. This equates to a per unit consumption of 140 gpd.

Penn Township Water District (PTWD) - The PTWD was created in 1940 by assumption of two competing water systems serving the Village of Coburn. At that time the Township created the Water Authority to operate and manage the system which it did until 1963. Since then the Township Supervisors have overseen the system and these three members serve 6-year elected terms. The Supervisors meet on the first Thursday of each month at 7:30 p.m. at the Coburn Civic Building.

Today the system is supplied water from Well No. 1 at Stillhouse Hollow with a safe yield of 115,200 gpd. The pump at the well house has a rated capacity of 99,360 gpd. In addition, the Township has recently initiated the development of another "back-up" well within a different aquifer. This new well is located along Tunnel Road in Rider Hollow. It will have a pre-chlorination treatment plant and be interconnected to the system to be used as an alternate to Well No. 1. The system's water is disinfected using chlorine and finished water is stored in 3 underground storage tanks each of which has a capacity of 10,000 gallons. Water is delivered via about 3700 feet of a combination of plastic and cast iron pipes with diameters ranging between 2 to 6 inches.

In 2003 average daily consumption was 26,197 gpd; however, this included flow associated with a leak which has since been repaired. Local representatives believe that the actual consumption is about 20,000 gpd. The system serves 90 residential, one commercial and two public customers and the average per use consumption is 215 gpd.

Rebersburg Water Company (RWC) - The RWC is a private community water system that serves the Villages of Rebersburg and nearby Smulton. The Smulton Water Company was merged into the Rebersburg Water Company a few years ago and the systems were physically interconnected and share the same capacities today. This system is managed by a President and Board of Directors who meet in the third week of January of each year, or as needed. Meetings are held in the Miles Township Fire Company's social hall. Three wells supply the system with the following capacities:

Water Sources for Rebersburg Water Company	
Well No.	**Capacity (gpd)**
1	79,200
2	64,280
3	86,400

Rebersburg currently uses gas chlorine to disinfect the well water. All three (3) well sources are GUDI sources. Rebersburg has successfully completed pilot testing of microfiltration equipment and is nearly complete with the design of a 100,000 gpd microfiltration plant. In addition, Rebersburg plans to construct a new 200,000-gallon bolted stainless steel ground-level finished water storage tank. This tank will replace the existing storage reservoirs and will be located to provide adequate water pressure to the entire distribution system via gravity. The treatment plant and storage tank are expected to be constructed by the end of 2006. Rebersburg has also recently completed the installation of residential water meters for all of their customers in the distribution system. Rebersburg has identified the need to replace old sections of water mains to increase the level of fire protection throughout the community.

Almost 2.5 miles of distribution lines include cast iron, ductile iron and plastic with diameters ranging between 4 and 8 inches. In 2003 230 customers consumed 35,000 gpd with an average consumption of 152 gpd. The Company is in the process of installing meters. No consumption by land use category is provided but it is noted that this system serves the Rebersburg Elementary School.

Spring Mills Water Association, Incorporated (SMWA) - The SMWA was created in 1965 to serve the Village of Spring Mills. Today the system extends beyond the Village to the north along PA Route 45. The agency is governed by a Board which meets the last Monday of each month at 7:30 p.m. in the Gregg Township Fire Hall.

The system's water source is the Firemans Spring located adjoining Penns Cave Road at PA Route 45; this spring has a safe yield of 108,000 gpd but is surface water influenced. The pumps have a rated capacity of 65,000 gpd and the chlorine injection treatment plant has a design capacity of 90,000 gpd. The Egg Hill standpipe stores 155,000 gallons of finished water.

The following tabulates the system's consumption in year 2003:

Spring Mills Water Association Consumption Year 2003		
Land Use Type	**No. of Customers**	**Gallons Sold (gpd)**
Residential	166	32,500
Commercial	5	7,500
Industrial	5	16,000
Public	4	1,000
Total	180	57,000

Therefore the total consumption by individual customer in 2003 was 317 gpd.

The following table lists the characteristics of the nine public water systems serving the Penns Valley Region:

Public Water Systems of the Penns Valley Region

Water System	Aaronsburg Waterpipe Inc	Centre Hall Boro W.D.	Country Club Park W.S.	E. Haines Twp. W.C.	Madisonburg Water Works	Millheim Borough W.C.	Penn Twp. W.D.	Rebersburg Water Co.	Spring Mills Water Assoc.
Service Area	Aaronsburg	Borough & Potter Twp.	Subdivision Potter Twp.	Woodward vicinity	Madisnburg vicinity	Millheim & Penn Twp.	Coburn vicinity	Rebersburg & Smullton	Spring Mills Vicinity
Water Sources Yield (gpd)	1 Well, 2 Springs	W8-590,000 W9–1,584,000 W11-576,000	W1–21,600 W2-64,800	2 springs @ 1440 gpd each	22,000 from proposed well**	Phillips Cr. - 180,000 Elk Cr. -180,000	Well 1 115,200	Well 1-79,200 Well 2-64,800 Well 3-86,400	Firemans Spring 108,000
Design Capacity (gpd)	158,400 minimum	635,000	21,600	50,000	25,000	288,000	99,360	72,000*****	90,000
Treatment processes	Diatomaceous earth filtering, chlorination and Ph balance.	Chlorination	Chlorination	Chlorination	Chlorination	Chemical coagulation flocculation sedimentation filtration	Chlorination settling	Gas chlorination; adding $1.2 million membrane filtration	Chlorination
2003/2004 Demand/gpd	50,000	332,000	7,000	29,820	12,000	51,433	26,197*	35,000	57,000
Residential	208	Total Connections 731	28	Total Connections 77	78	323	90	Unmetered 230	166
Commercial	1		0		3	44	1		5
Industrial	0		0		0	1	0		5
Public	0		0		0	0	2		4
Gpd / EDU	239	454	250	387	148	140	215	152	317
Storage Capacity (Gallons)	182,000	492,000	8,000	40,000	20,000	1,212,000	30,000	225,000****	150,000
Residual Capacity (gpd)	108,400	303,000	14,600	20,180	10,000	236,567	79,360	36,700***	33,000
Residual EDUs	454	667	58	52	68	1690	369	243	104
Issues	Need new well, low pressure, leaking mains.				Compliance with state requirements. Shared DEP operator.	Improved pressure for fire fighting.		Upgrading system to overcome GUDI sources.	

* This figure includes consumption that was due to a leak which was fixed. Actual daily consumption is about 20,000 gpd.

** Presently the system relies upon 8 springs that have been determined to be GUDI so the proposed well will replace these 8 springs.

*** Residual capacity derived from unused filtration capacity of existing treatment plant.

**** The existing 25,000 gallon concrete reservoir; adding 200,000 finished water standpipe.

***** The design capacity will increase to 100,000 gpd when the new treatment plant is activated.

To project future public water demands it is first important to understand current consumption within the Region. The following tabulates reported public water demands combined throughout the Region's nine public water systems.

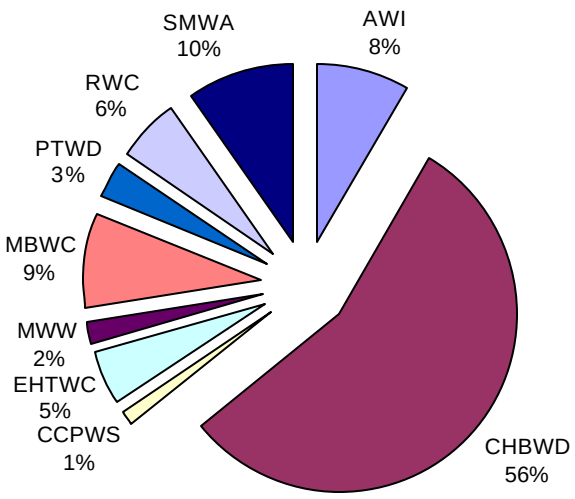
Year 2003 Public Water Consumed (Region-wide)			
System	**No. of Customers**	**Total Gallons Consumed per Day (gpd)**	**Consumption / EDU**
AWI	209	50,000	239
CHBWD*	731*	332,000*	454*
CCPWS	28	7,000	250
EHTWC	77	29,820	387
MWW	81	12,000	148
MBWC	368	51,433	140
PTWD	93	20,000	215
RWC	230	35,000	152
SMWA	180	57,000	317
Region-wide	***1997***	***594,253***	***298***

*1994 Figures

As can be seen, existing flows total just under 0.6 MGD. The Centre Hall Borough water system offers the greatest service in both gallons and number of customers by a wide margin. Next the Spring Mills Water Association, Millheim Borough Water Company and Aaronsburg Waterpipes all have comparable flows; however, more customers are served by the Millheim Borough Water Company system.

Because of the lack of information available from many of the public water providers there is no method for calculating non-residential flows; therefore, such nonresidential flows will be based upon data for public sewers for the Region that was used as a basis for projecting future public sewer flows.

2003 Public Water Use By System



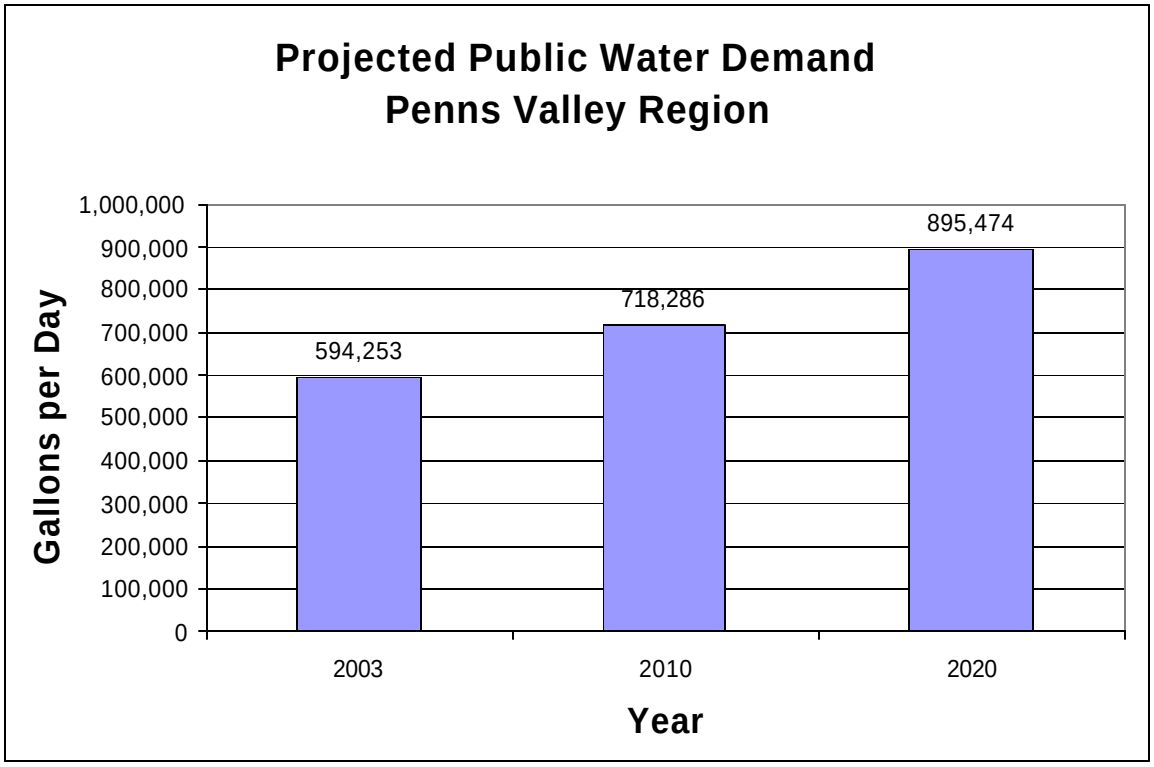
To project future public water demands several assumptions must be made as follows:

1. As presented in Chapter IV of this Plan (Demographics) the Region will grow by 864 persons per decade between 2000 and 2020;
2. As presented in Chapter IV of this Plan (Demographics) the Region will grow by 819 housing units per decade between 2000 and 2020;

3. In response to goals of this plan that call for targeting growth into public utility service areas, the ratio of new residential uses within with public water service will increase to 60%;
4. The current ratio of demand for public water from non-residential uses will be similar to the amount of public sewage to be generated by such uses in the future; and,
5. The average daily flow generated per new EDU is 298 gallons.

With these assumptions it becomes possible to project the amount of public water capacity needed to accommodate future growth. The following table presents this information:

Projected Public Water Demands 2003 to 2020 Attributed to New Growth				
Year	**Projected new dwelling units served by public sewer (60%) of total**	**Projected Demand for Public Water from New Residences (223 gpd/unit)**	**Projected Nonresidential Demands (based on sewage flows)**	**Projected total flows**
2003	NA	594,253 gpd (existing)		594,253 gpd
2010	344	102,506 gpd	21,527 gpd	718,286 gpd
2020	835	248,943 gpd	52,278 gpd	895,474 gpd



As the preceding graph reveals, the Penns Valley Region is projected to consume about 301,221 gpd more public water by the year 2020 than in the year 2003 representing a 50 percent increase.

The following summarizes the public water consumption versus residual capacity of the various public water systems on the Region:

Public Water Demand vs. Capacity (Year 2003) Gallons per Day			
System	**Existing Capacity**	**Existing Consumption**	**Residual Capacity**
AWI	158,400	50,000	108,000
CHBWD[1]	635,000	332,000	303,000
CCPWS	21,600	7,000	14,600
EHTWC	50,000	29,820	20,180
MWW	25,000	12,000	10,000
MBWC	288,000	51,433	236,567
PTWD	99,360	20,000[2]	79,360
RWC	100,000[3]	35,000	65,000
SMWA	90,000	57,000	33,000
Region-wide	***1,467,360***	***594,253***	***873,107***

[1] The Centre Hall Borough Water Department figures were based upon year 2004.

[2] The 2003 consumption figure was not used as it included flow associated with a leak that was fixed. Local experts calculate that the existing flows were 20,000 gpd.

[3] The capacity of the Rebersburg Water Company assumes completion of a new treatment plant which is currently planned.

As can be seen in the above table, there is an abundance of water supply available to the Region with particular capacity in the vicinities of Millheim and Centre Hall Boroughs and the Village of Aaronsburg. In addition moderate growth can be targeted around the smaller villages; this finding is consistent with the future land use goals for the Region to allocate growth to each municipality.

Operationally, this Plan should seek to target future growth into compact public water service areas that can be efficiently served.

C. SOLID WASTE DISPOSAL

In recent years, the management and handling of solid waste has become increasingly sophisticated, as the amount of refuse generated has increased. As a result of these conditions, and in accordance with the Pennsylvania Solid Waste Management Act of 1980 (Act 100) and the Pennsylvania Municipal Waste Planning Recycling and Waste Reduction Act of 1988 (Act 101), a comprehensive and up-to-date Countywide municipal waste management plan was prepared. The Centre County Solid waste Management Plan was adopted by the Centre County Board of Commissioners and ratified by the County's municipalities in 1995, and approved by the PA DEP in 1996.

In preparing the Plan, the Centre County Solid Waste Authority (CCSWA) was guided by its goal to provide for a comprehensive and integrated system of waste management and recycling system. The Plan is intended to provide guidelines for the safe and proper storage, collection, transport, processing, and disposal of municipal waste generated within the County.

With two exceptions all waste generated within Centre County passes through the CCSWA's Transfer Station within College Township. This site also includes a recycling processing center and an interpretive facility which is used to educate students from across the County and within the Penns Valley Region. Waste collected and transferred from this facility is disposed-of at the Shade Township landfill in Somerset County. Haulers operating in the extreme eastern edge of Centre County are permitted to transport waste directly to the Wayne Township Landfill in Clinton County. Haulers operating in the extreme western edge of Centre County are permitted to transport waste directly to the Green Tree Landfill in Elk County.

In 1998 and 2003 goals for recycling of waste were established by the United States Environmental Protection Agency and Pennsylvania at 25% and 35% percent, respectively. On both occasions the County surpassed these governmental goals. Today recycling is estimated at about 57%. The County offers curbside recycling in larger more populated municipalities within the Region and has distributed 100 drop-off recycling bins throughout the County. For the most part these recycling bins are emptied on an on-call basis.

Solid waste collection and disposal varies within the Penns Valley Region.

Centre Hall Borough uses private haulers contracted by individual property owners for curbside pick-up. In addition the CCSWA has recycling containers located at the Centre Hall-Potter Elementary School. The Borough offers curbside pickup of leaves and brush in the spring and the fall of each year. Also the Borough operates its "riff-raff" curbside pick-up days twice annually. Finally, the Borough prohibits all outdoor burning of waste.

Gregg Township relies upon private haulers and does not have a program of licensing. The CCSWA provides a recycling bin placed across the street from the post office in the Village of Spring Mills where residents can recycle on a voluntary basis. The Township conducts special waste collection after local disasters like local flooding. Within the Village of Spring Mills burning is permitted so long as it is constantly attended by someone 16 years of age or older, it occurs during safe weather conditions, it does not involve smoldering, outdoor wood-fired boilers or furnaces and it does not include toxic materials. Outside of the Village, burning is permitted without local restriction.

Haines Township has two licensed commercial haulers. The CCSWA provides a recycling bin placed at the Township office where residents can recycle on a voluntary basis. The CCSWA collects recycled materials from these on an on-call basis which varies seasonally. The Township allows for burning of non-toxic wastes in enclosed containers.

Miles Township relies upon private haulers and aside from requiring proof of insurance does not license them. Presently two haulers operate within the Township. The CCSWA provides two recycling bins placed at the Township office and the Miles Township Elementary School where residents can recycle on a voluntary basis. The Township permits burning without restriction.

Millheim Borough also relies upon private haulers with no local licensing and two currently operate within the Borough. The Borough has a trash removal ordinance which requires "regular" trash pick-up but no specific time frame is regulated. Most citizens have weekly pick-up but some use a monthly schedule. The CCSWA provides a recycling bin placed behind the Borough Office where residents can recycle on a voluntary basis. The Borough offers curbside leaf pickup for six weeks in late October and November each year. In

addition the Borough has a yard-waste drop off site on Park Road that operates continuously. Riff-raff curbside pick-ups occur at the discretion of Borough Council and are usually coordinated with neighboring Haines and Penn Township events. The Borough recently adopted a burning ordinance that limits burning to within a maximum 3-by-3-by-3 foot containers that are covered with a screen for non-toxic materials.

Penn Township currently has 3 approved private haulers that operate within the Township. The CCSWA provides a recycling bin placed at the Township Maintenance Building on Paradise Road where residents can recycle on a voluntary basis. The Township occasionally offers a "riff-raff" drop-off day at the discretion of the Board of Supervisors when residents can dispose of larger items (eg. tires, furniture, appliances, etc.) The Township offers curbside collection of these "riff-raff" items to the elderly and physically disabled. Finally, the Township allows for burning of non-toxic wastes in enclosed containers.

Potter Township allows for private haulers without Township licenses. The CCSWMA has recycling bins located at 4 locations throughout the Township. The Township offers a "riff-raff" drop-off day twice per year at the Township Office when residents can dispose of larger items (eg. tires, furniture, appliances, etc.) The Township offers curbside collection of these "riff-raff" items to the elderly and physically disabled. The Township also offers brush collection twice per year. Finally, the Township allows for open burning of non-toxic wastes.

Under Chapter 15 of the PA Municipal Waste Planning, Recycling and Waste Reduction Act, municipalities with a population of at least 5000 and a density exceeding 300 persons per square mile are required to "establish and implement a source-separation and collection program for recyclable materials. Such determinations are based upon the most recent decennial census conducted by the US Census Bureau. Today none of the municipalities approach this threshold, and the same is true for the projections through the year 2020 as revealed below.

Mandatory Recycling Threshold Calculations

Municipality	Land Area (Sq. Mi.)	Projected Population 2020	Population Requiring Recycling
Centre Hall Borough	0.6	944	5,000
Gregg Township	45.5	2,439	13,650
Haines Township	57.8	1,700	17,340
Miles Township	62.7	1,806	18,810
Millheim Borough	1.3	668	5,000
Penn Township	28.2	1,241	8,460
Potter Township	58.1	4,313	17,430

Although none of the municipalities within the Region come close to a population level that requires mandatory curbside recycling pick-up, many other places across the state have undertaken local recycling collection programs and the municipalities should periodically gauge public opinion about this popular trend and adjust service accordingly.

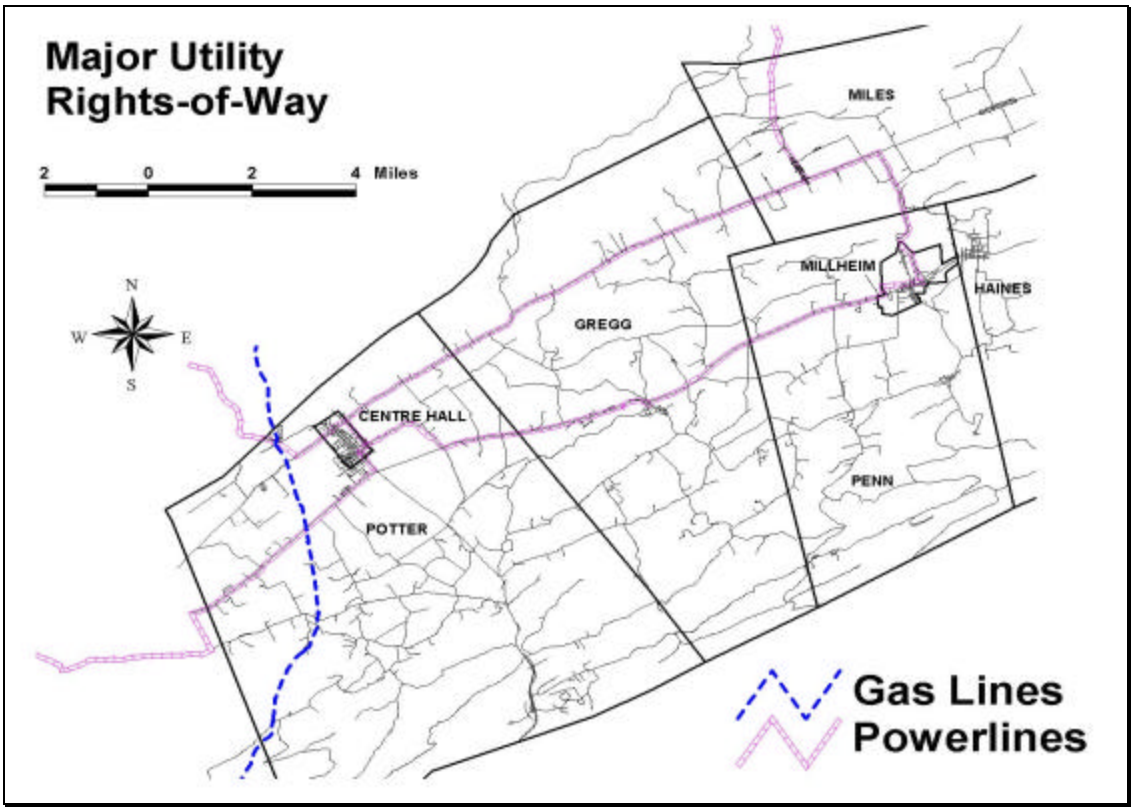
D. OTHER UTILITIES

Aside from the public sewer and water utilities described earlier in this section, several major utility rights-of-way pass through the Penns Valley Region that have distinct implications for future land use and proposed activities. ***Potential land developers and residents living near ROWs should use the PA One Call System at 800-242-1776 to contact representatives of the various utility companies with regard to any proposed projects.*** These regional transmission lines are depicted on the map on the following page and upon the Existing Land Use Map contained in Chapter V of this Plan.

Allegheny Power maintains several 46-kilovolt overhead electric transmission lines that generally follow PA Routes 45, 192 and 445 and form a loop connecting local substations within all of the Region's municipalities except Haines Township. These lines each typically have 50-feet-wide rights-of-way although local variations occur.

All of these rights-of-way are obtained through agreements with private landowners or by permits. The Company's standard right-of-way agreements state:

"Grantors agree not to construct any buildings, swimming pools or other structures under or create any hazard to interfere with full and proper use of said electric system."



Texas Eastern Transmission, LP has one 24-inch diameter gas pipeline that crosses the northwest corner of Potter Township in a cross-country alignment. This pipeline has a right-of-way about 50 feet wide with 25 feet on the east and west side of the pipeline. Texas Eastern has acquired additional right-of-way width this pipeline section for future potential extension of another pipeline; however, at this time no plans are confirmed.

Rights-of-way are obtained through the acquisition of private easements. The following describes the Company's specified design and construction guidelines associated with this ROW:

1.0 PURPOSE

1.1 This guideline presents the requirements for construction in the vicinity of a Duke Energy Gas Transmission(herein referred to as Company) pipeline(s) or pipeline right-of-way. These requirements are general in nature whereby specific circumstances may necessitate special considerations. The following areas are addressed.

1.0 Purpose
2.0 Company Notifications
3.0 General Requirements
4.0 Excavation and Blasting
5.0 Utility and Foreign Line Crossings

1.2 If any of the conditions stated in this document can not be satisfied, the Company representative shall be advised immediately.

2.0 COMPANY NOTIFICATIONS

2.1 The Company considers it essential that developers and contractors know the exact location and depth of the Company's pipeline(s) and requires that the pipeline(s) be shown on the contractor's plans.

2.2 The Company will field locate and stake its pipeline(s) at selected points in accordance with state and local requirements at no cost to the developer or contractor. However, the cost to excavate the pipeline and restore surface improvements (e.g., pavement, landscaping, sidewalks) shall be the responsibility of the developer or contractor. Note: A Company representative must be present during the excavation to expose the pipeline.

2.3 Copies of any proposed plans or drawings for road crossings within the pipeline right-of-way shall be submitted to the Company for review at least 30 days prior to the commencement of work.

2.4 The Company shall be given at least three (3) working days advance notice prior to the actual commencement of any work or excavation over or near its pipeline right-of-way so that the Company may locate its pipeline(s) and have a field representative present during excavation or construction activities.

2.5 In addition to complying with the above Company requirements, developers, contractors, utility companies, and landowners shall comply with the provisions of all state and/or local one-call regulations relating to excavation and demolition work in the vicinity of underground facilities.

3.0 GENERAL REQUIREMENTS

3.1 No buildings, structures or other obstruction may be erected within, above or below the pipeline right-of-way. If requested, the Company will furnish pipeline easement information which describes the pipeline right-of-way width.

3.2 Wire fencing and decorative fencing that can be easily removed and replaced may cross the pipeline right-of-way at or near right angles.

3.3 Planting of trees is not permitted on the pipeline right-of-way.

3.4 Planting of shrubs, bushes or other plants associated with landscaping on the pipeline right-of-way is subject to Company approval and shall not exceed 4 feet in height.

3.5 No drainage swells and no reductions in grade are permitted on the pipeline right-of-way. Limited additional fill may be deposited with prior written approval from the Company.

3.6 A Company representative must give prior approval for heavy equipment to cross the Company pipeline(s) at any location. Minimum cover and other requirements will be determined by the Company on an individual basis.

3.7 Parking areas should be planned so as to avoid covering the pipeline right-of-way if possible.

3.8 No roads, foreign lines, or utilities may be installed parallel to the pipeline within the pipeline right-of-way.

3.9 All foreign lines, roads, electrical cables and other utilities must cross the pipeline right-of-way at an angle as near to 90-degrees as practical.

3.9 If, in the sole judgement of the Company, the utility's, owner's and/or developer's proposed plans necessitate the installation of casing pipe and/or other alterations to protect the Company's pipeline(s), the utility, owner and/or developer shall pay the Company the estimated cost prior to the Company beginning the alterations. Once the actual costs have been incurred and tabulated by the Company, the Company and the utility, owner and/or developer shall settle any cost variances.

4.0 EXCAVATION AND BLASTING

4.1 Excavation operations shall be performed in accordance with the guidelines set forth below.

4.1.1 When a contractor excavates near Company pipelines, the Company representative must be on site at all times to locate the pipeline(s), to determine the depth of cover before and during the excavation (see Section 2.4) and to witness the excavation and backfilling operations. The contractor shall not perform any excavation, crossing, backfilling or construction operations unless the Company representative is on site. **The Company representative shall have full authority to stop the work if it is determined that the work is being performed in an unsafe manner.**

4.1.2 Excavation by a third party backhoe or other mechanical equipment shall not be permitted within the Company pipeline right-of-way until an excavation plan has been reviewed and approved by the Company representative. The excavation plan may be a written document produced by the contractor or a verbal discussion between the contractor and the Company representative. As a minimum, the excavation plan shall include but not be limited to the following:

- *Backhoe set-up position in relationship to the pipeline*
- *Need for benching to level backhoe*
- *Required excavation depth and length*
- *Sloping and shoring requirements*
- *Ingress/egress ramp locations*
- *Minimum clearance requirements for mechanical equipment*
- *Verify bar has been welded onto backhoe bucket teeth and side cutters have been removed*
- *Pipeline location and depth*
- *Spoil pile location*
- *Compliance with OSHA regulations*

4.1.3. No mechanical excavation equipment shall be used within 6" of the pipeline(s). Hand shovels shall be used to push the dirt directly above the pipeline(s) into the ditch.

4.1.4 Federal regulations require that the Company's pipe be inspected whenever it is exposed. OSHA regulations pertaining to excavations must therefore be met to ensure the safety of the Company representative who must enter the excavation.

4.2 Blasting operations shall be performed in accordance with the guidelines set forth below.

4.2.1 The Company shall be advised of any blasting proposed within 200 feet (500 feet for large scale quarry-type blasting) of its facilities. No blasting is permitted within the pipeline right-of-way, and no blasting shall occur outside the pipeline right-of-way if the Company determines that such blasting may be detrimental to its facilities.

4.2.2 The Company reserves the right to require that the party responsible for blasting furnish a detailed blasting plan at least three (3) working days prior to blasting to allow for evaluation and to make arrangements for witnessing the blasting operation. Blasting codes shall be followed in all cases.

5.0 UTILITY & FOREIGN LINE CROSSINGS

5.1 All buried foreign lines must be installed as noted below and as stated in Section 3.9, as appropriate.

5.1.1 Foreign lines must be installed below the Company's pipeline(s) with a minimum of 12" of clearance except as noted in Section 5.1.2. Additional separation may be required in marshy areas or other areas where the 12" of clearance would have a potential to cause future problems.

5.1.2 Foreign lines may be installed above the Company's pipeline(s) with prior approval from the Company representative. All such lines shall be installed with a minimum of 12" of clearance. The Company will not be responsible for any damage or required repairs which are caused by the Company's operating and maintenance activities when foreign lines are installed above the pipeline(s). Protective measures such as a concrete encasement, ditch marking tape, and/ or above ground markers may be required as deemed necessary by the Company representative.

5.1.3 Suitable backfill shall be placed between the foreign line and the Company's pipeline(s).

5.1.4 All metallic foreign lines must have test leads (two No. 12 THW black insulated solid copper wires) attached at the point of crossing for corrosion control monitoring. Test wires shall be routed underground and terminated at a point specified by the Company.

5.2 The following requirements shall be met forfiber optic cables which encroach upon the pipeline right-of-way.

5.2.1 The fiber optic cable shall be installed in a rigid non-metallic conduit or covered in 6-8" of concrete which has been colored with an orange dye extending across the entire pipeline right-of-way.

5.2.2 The fiber optic cable must be installed a minimum of 12" below the Company's pipeline(s) across the entire width of the pipeline right-of-way, unless approved by the Company representative.

5.2.3 Orange warning tape must be buried a minimum of 18" directly above the fiber optic cable across the entire width of the pipeline right-of-way, where practical.

5.2.4 The fiber optic cable crossing must be clearly and permanently marked with identification signs on both sides of the pipeline right-of-way.

5.3 The information listed below shall be furnished to the Company for all proposed electrical cables which will encroach upon the pipeline right-of-way. Specific installation requirements for cables carrying less than 600 volts shall be determined by the Company on a case by case basis. Cables which carry 600 volts or greater shall adhere to the installation requirements described in Section 4.4.

- Number, spacing and voltage of cables
- Line loading and phase relationship of cables
- Grounding system
- Position of cables and load facilities relative to pipeline(s)

5.4 The following installation requirements shall be met for electrical cables carrying over 600 volts but less than 7,600 volts. The Company will determine the installation procedures for electrical lines carrying voltages over 7,600 volts on a case by case basis.

5.4.1 The electrical cable shall be installed in a rigid non-metallic conduit covered in a minimum thickness of 2" of concrete which has been colored with a red dye extending across the entire pipeline right-of-way.

5.4.2 The electrical cable must be installed a minimum of 12" below the Company's pipeline(s) across the entire width of the pipeline right-of-way,unless approved by the Company representative.

5.4.3 The neutral wires shall be externally spirally wound and grounded on each side of the pipeline right-of-way.

5.4.4 Red warning tape must be buried a minimum of 18" directly above the electric cable across the entire width of the pipeline right-of-way, where practical.

5.4.5 The electric cable crossing must be clearly and permanently marked with identification signs on both sides of the pipeline right-of-way.

5.5 Overhead power line and telephone line installations shall be reviewed by the Company on an individual basis. As a minimum requirement, overhead lines shall be installed with a minimum clearance of 25 feet above the grade of the pipeline right-of-way. The installation of poles will not be permitted on the pipeline right-of-way.

IX. Transportation

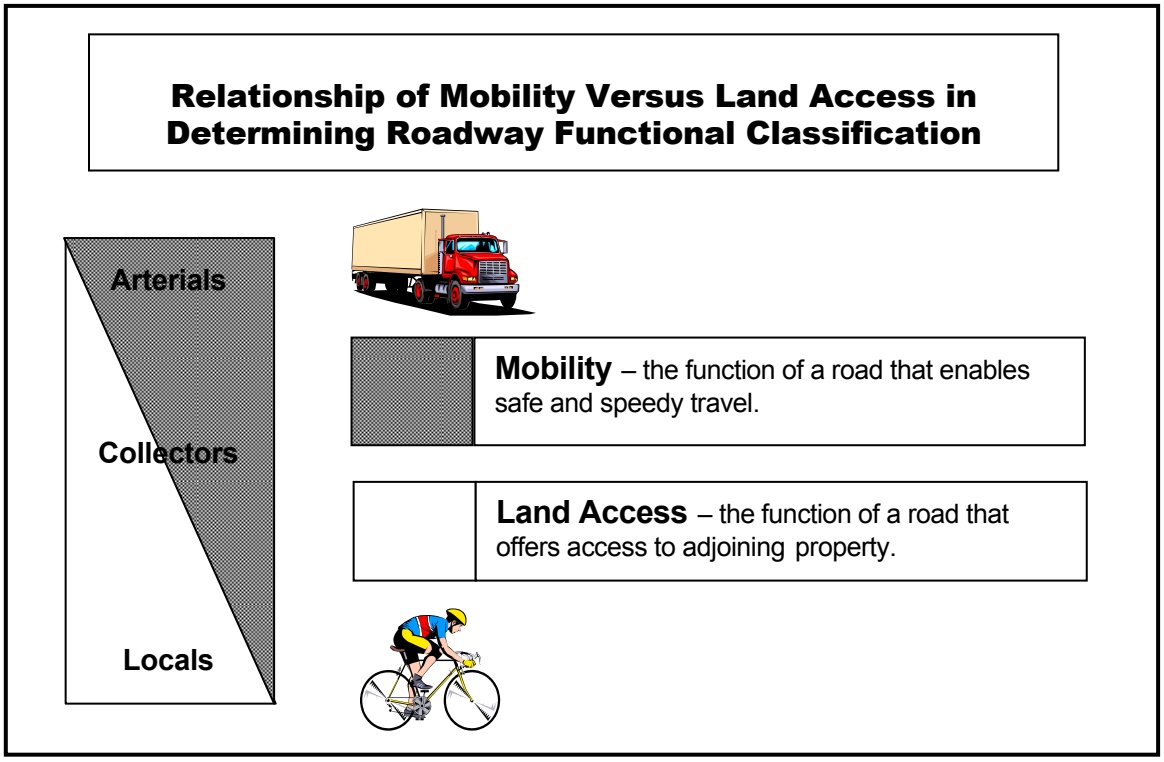
Mobility has become one of the most sought-after qualities of life of this century. The widespread use and development of automobiles, trucks and their road networks have enabled motorists to travel independently with great flexibility as to origins and destinations. Only recently, with increased congestion, has society begun to realize that the extensive use of the automobile may, in fact, be threatening both mobility and safety. This realization has led to efforts to better understand the relationship between transportation planning and land use planning, and has created renewed interest in alternative modes of transport.

This chapter will inventory the Region's transportation system, beginning by categorizing roadway functional classifications, as determined by the PA Department of Transportation (PENNDOT) and Centre County Planning Commission, describing roadway design standards, and presenting available traffic volume data and accident locations according to PENNDOT records. A brief discussion of regional traffic impacts is followed by a description of alternative modes of transport and railway access. All of this data is then analyzed and applied to the Region's development objectives and other available plan information to form the basis for the chapter's recommendations on future transportation needs, land use scenarios and implementation strategies. Such information should also be useful in reviewing traffic studies associated with proposed developments; ***each municipality should adopt comprehensive traffic impact study regulations within their subdivision and land development ordinances and the County should incorporate similar regulations on behalf of those municipalities who rely upon the County for their subdivision/land development reviews.***

A. ROADWAY CLASSIFICATIONS AND DESIGN STANDARDS

Functional classification of roadways refers to a system by which roads are described in terms of their utility. Theoretically, roads provide two separate functions. First, roads provide for mobility—the ability to go from one place to the next. Second, roads provide a measure of access to adjoining properties. Transportation experts use these two roadway characteristics to determine a road's functional classification.

The diagram on the following page depicts the relationship between roadway mobility and roadway land access for each of the three general road types. Roads that provide for greater mobility provide for reduced land access, and vice versa. This important relationship should always be considered when allocating future land uses along existing or planned roads. These road types can be further subdivided into any number of different categories, depending upon the complexity of the roadway network. However, for the purpose of this study, the Region's roadway network can be described as consisting of three classes namely arterials, collectors, and local roads. The roads within the Region are classified and identified on the ***Transportation Map***.



ARTERIALS

Arterial roads emphasize greater mobility than land access and individual driveway cuts should occur very rarely except in outlying rural areas. Arterials generally convey between 10,000 and 25,000 average daily trips (ADT) for distances greater than one mile. Arterials often connect urban centers with outlying communities and employment or shopping centers. Consequently, arterials are often primary mass transit routes that connect with "downtown" areas of nearby communities. The Region's ridge and valley topography and its rural character have greatly influenced its road design and travel patterns. The Region has a sparse road network with relatively few arterials; however, those roads that exist are very important routes for local and commuters who pass through the Region. PA Route 45 serves most of the Region and runs in an east/west direction in the Penns Valley Region. US Route 322 crosses the southeast corner of Potter Township with a northwest/southeast alignment. Finally, PA Route 144 runs in a north/south direction through Potter Township and Centre Hall Borough. The following sets forth design standards associated with arterial roads suitable for the Region:

ARTERIAL ROAD DESIGN STANDARDS

Source: Guidelines for the Design of Local Roads and Streets, PA Dept. of Transportation, Bureau of Design

Design Standards	No. of Lanes and Width	Shoulder Widths	Vertical Clearance	Median Width	Parking Lanes*	Design Speed (mph)
Desirable	5 x 12 ft.	10 ft on right; 4 ft on median	16.5 ft.	18 ft.	12 ft each when provided	60
Minimum	2 x 11 ft.	8 ft on right; 4 ft on median		0 ft.	10 ft each when provided	40

*limited to downtown locations

The following table summarizes the characteristics of the Region's arterial roads:

ARTERIAL ROADWAY CHARACTERISTICS						
Road Name	**Municipality**	**Est. ADT (2004)**	**No. Lanes**	**Cartway Width**	**Shoulder Width L/R**	**MPH**
US Route 322	Potter	11,533* to 14,894	2-4	24 ft.	4-8/4-8 ft	45-55
PA Route 45	Potter	7251	2	22	6/6 ft.	40-55
PA Route 45	Gregg	6521	2	22	7/7 ft.	45-55
PA Route 45	Penn	5403	2	22	5/5 ft.	35-55
PA Route 45	Millheim	4002	2	22	5/5 ft.	25-35
PA Route 45	Haines	2599	2	22	7/7 ft.	55
PA Route 144	Potter	5252	2	21	3/3 ft.	35-55
PA Route 144	Centre Hall	13,831	2	22	3/3 ft.	35

** Volume recorded west of Potters Mills*

Based upon a comparison of the minimum arterial road design standards and the existing characteristics of the Region's arterial roads, the following list identified deficiencies that should be incorporated into the Region's future transportation improvements "wishlist:":

NEEDED IMPROVEMENTS TO ARTERIAL ROADS			
Route No.	**Municipality**	**Cartway improvements**	**Shoulder Improvements**
PA Route 45	Potter	NA	Add 2' to each shoulder
PA Route 45	Gregg	NA	Add 1' to each shoulder
PA Route 45	Penn	NA	Add 3' to each shoulder
PA Route 45	Haines	NA	Add 1' to each shoulder
PA Route 144	Potter	Add 1 foot to cartway	Add 5' to each shoulder

** Shoulder improvements are not proposed within the Boroughs due to their urban context with adjoining sidewalks and limited adjoining area.*

COLLECTOR ROADS

Collector roads provide for medium length travel distances (generally less than one mile) and convey between 1,500 and 10,000 ADT. Collectors also provide land access to major land uses such as regional shopping centers, large industrial parks, major subdivisions, and community-wide schools and recreation facilities. Collectors primarily serve motorists

between local streets and community-wide activity centers or arterial roads. These streets can serve as the main circulation roads within large residential neighborhoods. Trip lengths tend to be shorter in "developed" neighborhoods, like that of a borough, due to the presence of nearby destinations or higher order roads. However, within the rural areas of the Region these roads travel greater distances.

The Region has two collector roads. First PA Route 192 runs in the Brush Valley area in an east/west direction. It connects the Villages of Livonia, Rebersburg and Madisonburg in Miles Township with Gregg and Potter Townships and Centre Hall Borough. PA Route 445 follows a winding northwest/southeast course across ridges from Millheim Borough on the south, through the Village of Madisonburg to the Village of Nittany in Walker Township, just north of the Region. The following sets forth design standards for collector roads suitable for the Region:

COLLECTOR ROAD DESIGN STANDARDS

Source: Guidelines for the Design of Local Roads and Streets, PA Dept of Transportation, Bureau of Design

Design Standards	No. of Lanes and Width	Shoulder Widths	Vertical Clearance	Median Width	Parking Lanes	Design Speed (mph)
Desirable	5 x 12 ft.	10 ft on right; 4 ft on median	14.5 ft.	16 ft.	10 ft each when provided	60
Minimum	2 x 10 ft.	8 ft on right; 4 ft on median		2 ft. when provided	8 ft each when provided	40

The following table summarizes the characteristics of the Region's collector roadways:

COLLECTOR ROADWAY CHARACTERISTICS

Road Name	Municipality	Est. ADT (2004)	No. Lanes	Cartway Width	Shoulder Width L/R	MPH
PA Route 192	Centre Hall	2437	2	20	3/3/ft.	35
PA Route 192	Potter	2437	2	20	3/3 ft.	35-55
PA Route 192	Gregg	2437	2	20	3/3 ft.	55
PA Route 192	Miles	2437	2	20	3/3 ft.	40-55
PA Route 445	Millheim	1664	2	20	3/3 ft.	25-45
PA Route 445	Penn	1664	2	20	3/3 ft.	45
PA Route 445	Miles	1664	2	20	3/3 ft.	45

Based upon a comparison of the minimum collector road design standards and the existing characteristics of the Region's collector roads, the following lists identified deficiencies that should be incorporated into the Region's future transportation improvements "wishlist:":

NEEDED IMPROVEMENTS TO COLLECTOR ROADS			
Route No.	**Municipality**	**Cartway improvements**	**Shoulder Improvements**
PA Route 192	Potter	NA	Add 5' to each shoulder
PA Route 192	Gregg	NA	Add 5' to each shoulder
PA Route 192	Miles	NA	Add 5' to each shoulder
PA Route 445	Millheim	NA	Add 5' to each shoulder*
PA Route 445	Penn	NA	Add 5' to each shoulder
PA Route 445	Miles	NA	Add 5' to each shoulder

** Shoulder improvements are not proposed within the Boroughs due to their urban context with adjoining sidewalks and limited adjoining area.*

LOCAL ROADS

Local roads are intended to provide immediate access to adjoining land uses. These roads are generally short and narrow, and comprise the bulk of road area within urban areas like the Region. Local roads are intended to only provide for transportation within a particular neighborhood, or to one of the other road types already described.

The following describes the design standards for local streets suitable for the Region:

LOCAL ROAD DESIGN STANDARDS

Source: Guidelines for the Design of Local Roads and Streets, PA Dept. of Transportation, Bureau of Design

Design Standards	No. of Lanes and Width	Shoulder Widths	Vertical Clearance	Median Width	Parking Lanes*	Design Speed (mph)
Desirable	2 x 12 ft.	10 ft on right	14.5 ft.	None	10 ft each	30
Minimum	2 x 10 ft.	6 ft on right			8 ft each	20

All of the Region's roads that are not classified as arterials or collectors are considered local roads. ***Local officials should compare existing local road conditions with the above standards and initiate a campaign of local road improvement in those areas experiencing greatest traffic flow and/or accident frequency.***

In addition, developers along local roads should be required to dedicate additional right-of-way and improve local road frontage according to such local standards as part of the land development process. The Region should develop standard road design criteria that can be used to ensure seamless road corridors as one moves form one municipality to the next.

As important as road design, is land use access. As discussed earlier in this Chapter, an

effective conveyor of traffic cannot provide for unlimited land access. Each driveway or roadway intersection introduces conflicting traffic movements that reduce a road's ability to convey traffic quickly and safely. ***Therefore, new connections to the arterial and collector road system should be minimized to avoid unnecessary driveway and road cuts. Local officials must enforce strict policies that will minimize such connections to ensure efficient traffic flow. This process is a long-term strategy that will take many years and should start now! In addition, the Future Land Use scheme developed for this Plan specifically designed urban land use categories to minimize driveway connections with adjoining highways. Local officials should be mindful of these techniques when adjusting zoning boundaries.***

Zoning and subdivision/land development regulations can limit permitted driveway cuts, require wider lots, and provide for incentives and design flexibility that encourage adjoining properties to share vehicular access among other things (e.g., parking, loading, signage, storm water control, etc.). For access on State roads, local officials should work closely with PENNDOT officials to limit highway access to the minimum required.

B. TRAFFIC SAFETY

In addition to reducing congestion, traffic safety is another important consideration in the scheduling of roadway improvements. High accident locations result from factors such as inadequate road design, insufficient sight distance, improper relationship between land use and road classification, improper speed limits, limited traffic enforcement and driver frustration/error. This section describes traffic accident statistics within the Region to gain a general understanding of their location and severity. This will help to ensure a proper relationship between land use and access.

The Pennsylvania Department of Transportation, Center for Highway Safety, provided accident data for the period between 1999 and 2001. This three-year period provides the most recent reportable accident data available. A reportable accident is one in which an injury or fatality occurs, or at least one of the vehicles involved requires towing from the scene. The locations of the majority of accidents discussed on the following pages have been plotted on the *Transportation Map*.

Specific accident locations are ranked by frequency for the Region. These specific locations are ranked and reported in two categories. First, accidents that occurred at specific intersections at two or more roads are identified and ranked. Second, accidents that occurred along one road between two roads, or mid-block accidents, are enumerated and ranked. Mid-block accidents also include accidents that occurred along public roads at an intersection with a driveway.

Finally, accident statistics from the Transportation Element of the Centre County Comprehensive Plan were also used to supplement both intersection and mid-block accident statistics. These figures represent high crash clusters between years 1996 and 2000 as determined by PENNDOT.

INTERSECTION ACCIDENTS

The following table ranks those intersections that recorded multiple reportable traffic

accidents between 1999 and 2001:

INTERSECTION ACCIDENTS (1999-2001)			
Rank	**Intersection**	**Municipality**	**Total No. of Accidents**
1	US Route 322 & PA Route 144	Potter Township	5
1	PA Routes 45 & 144	Potter Township	5
2	PA Routes 144 & 192	Centre Hall Borough	2
2	PA Route 45 & SR2007	Gregg Township	2
2	PA Route 45 & Firehall Road	Gregg Township	2
2	PA Route 192 & Old Pike Road	Miles Township	2
2	PA Route 45 & Smithtown Gap Road	Penn Township	2
2	PA Route 322 & SR2015 & Crossover Road	Potter Township	2
2	US Route 322 & Red Mill Road	Potter Township	2

The two worst accident intersections within the Region between 1999 and 2000 are both along PA Route 144 and both within Potter Township. First, the intersection at US Route 322 recorded at Old Fort suffers from poor vertical and horizontal alignments that create difficult traffic movements. Furthermore, both roads convey arterial traffic volumes at relatively high speeds. Presently this intersection relies upon a single stop sign for southbound traffic upon PA Route 144. All of these factors contribute to conditions that are difficult to negotiate when traveling through this busy intersection.

Four out of the five reported accidents occurred during the PM peak rush hour. Three of these accidents occurred when a vehicle traveling east on Route 322 improperly turned left onto Route 144 North and was struck by an oncoming vehicle that was traveling west on Route 322. The other two accidents occurred when a vehicle pulled out from Route 144 onto Route 322 East and was struck by an on coming vehicle traveling west on Route 322. In all of these cases an improper left turn was the reported reason for the accident. The following tabulates reported conditions surrounding these accidents at this intersection:

Reported Conditions During Accidents at US Route 322 & PA Route 144					
Accident No.	30	109	116	147	195
Alcohol-related	No	No	No	No	No
Injury	2 minor	None	2 moderate	None	2 minor
Weather	Dry	Dry	Dry	Dry	Dry
Day	Fri	Thurs	Fri	Mon	Sat
Time	9PM	6PM	6PM	6PM	5PM
Football season	No	No	No	No	Yes

Second, the intersection of PA Routes 45 and 144 also combines arterial traffic volumes and speeds. Here the intersection is signalized and both horizontal and vertical alignments appear to be satisfactory. Four of the five total accidents occurred on Friday and all were in the morning. Four of the five accidents occurred as the result of a vehicle making an improper left turn in the path of an oncoming vehicle who was traveling straight through the intersection. These four accidents occurred in each of the intersections four approaches. The fifth accident involved a red light violation where a vehicle traveling west on Route 45 was struck by a vehicle traveling south on PA Route 144. The following tabulates reported conditions surrounding these accidents at this intersection:

Reported Conditions During Accidents at PA Routes 45 & 144					
Accident No.	41	63	145	148	154
Alcohol-related	No	No	No	No	No
Injury	None	None	None	None	2 minor
Weather	Rain	Dry	Dry	Dry	Dry
Day	Fri	Fri	Sat	Fri	Fri
Time	11AM	Noon	10AM	9AM	5AM
Football Saturday	No	No	Yes	No	No

In addition the ongoing update of the Centre County Comprehensive Plan identifies the following intersections as high crash clusters between 1996 and 2000 which are also depicted on the Transportation Map:

High Crash Cluster Intersections	
Municipality	Intersection
Gregg Township	PA Route 45 & Penns Cave Road
Potter Township	US Route 322 & Red Mill / Mountain Back Road
Potter Township	PA Routes 45 & 144

It is important to understand that traffic accidents occurring at intersections account for only 10 percent of the total reported accidents within the Region. Mid-block accidents comprise the vast majority of accidents and this is typical to rural areas like the Penns Valley Region that tend to have more road miles per intersection than more urban settings where intersections are more frequent. The following enumerates the frequency of mid-block accidents within the Region.

MID-BLOCK ACCIDENTS

Mid-block accidents are those accidents that occurred along one road between its intersections with two other roads. Mid-block accidents also include accidents that occurred along public roads at an intersection with a driveway. The following table ranks the mid-block sites that averaged at least one reportable traffic accident per year:

MID-BLOCK ACCIDENTS (1999-2001)									
Rank	Route	Total Accidents Region-wide	Accidents / Municipality						
			Centre Hall	Gregg	Haines	Miles	Millheim	Penn	Potter
1	PA Route 45	113	NA	**21**	**16**	NA	**13**	**26**	**37**
2	US Route 322	88	NA	NA	NA	NA	NA	NA	**88**
3	PA Route 144	41	**9**	NA	NA	NA	NA	NA	**32**
4	PA Route 192	39	NA	**14**	NA	**18**	NA	NA	**7**
5	SR 2012	12	NA	**10**	NA	NA	NA	**2**	NA
6	SR 2011	5	NA	NA	NA	NA	NA	**5**	NA
6	T-477	5	NA	NA	NA	**5**	NA	NA	NA
7	T-880	4	NA	NA	NA	**4**	NA	NA	NA
8	SR 2010	3	NA	**3**	NA	NA	NA	NA	NA
8	T-500	3	NA	NA	NA	NA	NA	**3**	NA

Like for intersection accidents, the ongoing update of the Centre County Comprehensive Plan identifies the following mid-block high-crash cluster sites: These segments are part of other routes listed in the above table and these designated sites are specifically depicted on the Transportation Map.

High Crash Cluster Mid-Block Segments	
Municipality	Intersection
Centre Hall Borough	PA Route 144
Potter Township	US Route 322
Potter Township	PA Route 144 north of US Route 322

Unsurprisingly, roads with the greatest traffic volumes covering the longest distances record the highest number of mid-block accidents. This result is a matter of mathematical probability. Arterial and collector roads tend to record the highest relative accident frequency because these roads carry the most traffic for longer distances. However beyond these inherent characteristics that are difficult to overcome, local officials can take steps to reduce traffic accidents. Often motorists on these major roads have conflicting reasons for using them. ***Local officials should be ever mindful of these conflicts and the safety problems they create. Access management techniques described earlier should be used to coordinate road function with adjoining land use. Local officials should look to combine access drives, signs, and off-street parking and loading for businesses that are proposed along these important arterials and collectors. Parallel service roads can also separate local business traffic movements from higher speed through traffic flow. Similarly, rural residences along busy roads should share joint use driveways and flag-lot configurations to avoid numerous separate driveway cuts.***

The following describes fatal accidents recorded within the Region from 1999 and 2001:

TRAFFIC FATALITIES (1999-2001)				
Municipality	**Principal Road**	**At Intersection**	**Persons Killed**	**Type of Accident**
Gregg Township	Beaver Dam Road	NA	1	Small truck speeding east swerved and flipped over into an embankment.
Gregg Township	PA Route 45	NA	1	Auto traveling west in the rain hit a utility pole on wrong side of road.
Potter Township	SR 2015	US Route 322	1	Small truck pulled onto US Route 322 too soon and struck and overturned vehicle on Route 322.

The following table lists reportable accident types and severity along with probable contributing factors by municipality in the Region:

The Region recorded 420 total reportable traffic accidents between 1999-2001. This rate is typical to the Region's varied settings and its road network. In rural areas traffic accidents tend to occur at mid-block locations because intersections are less frequent when compared with the distances traveled. Throughout the Region, mid-block accidents occurred at a rate about 9 times that of intersection accidents. Even in the two Boroughs, mid-block accidents were more frequent than intersection accidents.

Potter Township recorded the highest frequency of accidents accounting for nearly 48 percent of all of the Region's accidents. This result is unsurprising as all but one of the Region's arterial and collector roads pass through Potter Township. Both Centre Hall and Millheim Boroughs recorded the fewest accidents representing only about four percent each within the Region.

Regionally, almost half of all accidents involve vehicles colliding with fixed objects. This often results in more rural settings where winding rural roads and excess speeds combine. ***The Region should request that the PA State Police target high-accident locations for speeding enforcement.*** Many accidents (17%) involve rear-end collisions followed by angle collisions (12%). 31 accidents were attributed to deer. About one-third of all accidents involved drivers exceeding a safe or posted speed.

ACCIDENT TYPES, SEVERITY & FACTORS (1999-2001)								
	Region	**Centre Hall**	**Gregg**	**Haines**	**Miles**	**Millheim**	**Penn**	**Potter**
Accident Type								
Non-collision	29	0	4	1	4	1	3	16
Rear-end	72	7	8	2	1	3	9	42
Head-on	24	2	5	0	2	1	4	10
Backing-up	0	0	0	0	0	0	0	0
Angle	52	3	5	2	9	2	3	28
Sideswipe	10	1	0	1	0	0	2	6
Hit fixed object	208	4	52	15	18	9	27	83
Hit pedestrian	3	0	0	0	0	2	0	1
All others	22	0	2	3	3	0	0	14

ACCIDENT TYPES, SEVERITY & FACTORS (1999-2001)								
	Region	**Centre Hall**	**Gregg**	**Haines**	**Miles**	**Millheim**	**Penn**	**Potter**
Unknown	0	0	0	0	0	0	0	0
Total Accidents	420	17	76	24	37	18	48	200
Accident Severity								
Fatal	3	0	2	0	0	0	0	1
Major injury	20	0	6	2	2	1	3	6
Moderate injury	51	1	12	1	5	3	9	20
Minor injury	173	6	33	9	16	6	19	84
Unknown injury	0	0	0	0	0	0	0	0
Total with injury	247	7	53	12	23	10	31	111
Accident Location								
Intersection	43	6	5	1	6	2	3	20
Mid-block	377	11	71	23	31	16	45	180
Probable Factors								
Too Fast	114	4	20	6	11	1	13	59
Wrong Side	58	1	16	4	5	2	5	25
Other Factors	42	3	5	1	4	4	7	18
Deer	31	0	6	4	4	0	2	15
Speeding	28	2	5	3	2	2	2	12
Drinking	26	0	7	2	0	2	8	7
Distraction	25	1	3	2	2	0	3	14
Fatigue	23	0	3	1	0	1	4	14
Tailgating	22	3	0	1	1	1	3	13
Pulled out to soon	16	2	2	0	3	1	0	8
Improper turn	14	0	0	0	1	0	2	11
Improper entrance	8	1	0	2	4	1	0	0
Car failure	7	0	0	0	0	2	0	5
Overcompensation	4	0	4	0	0	0	0	0
Slippery road	4	0	4	0	0	0	0	0
Illegal Pass	4	0	0	2	0	0	2	0
Adverse weather	3	0	3	0	0	0	0	0
Pedestrian	2	0	0	0	0	2	0	0
Inside event	2	1	0	0	0	0	1	0
Inexperience	1	1	0	0	0	0	0	0
Illegal stop	1	0	0	0	1	0	0	0

About 5.5 percent of accidents involve major injury or fatality but 61 percent produce some injury. Gregg Township has a disproportionately high incidence of traffic accidents that result in moderate injury or worse although Potter Township had the most number of serious accidents. As described earlier, three fatalities occurred within the Region, two in Gregg and one in Potter Townships.

C. REGIONAL TRAFFIC PATTERNS

Analysis of the average daily traffic volumes for the Region's roads provides some insight into the Region's role as a destination and/or thoroughfare.

First, clearly the highest volumes recorded occur along US Route 322 through Potter Township. It would appear that most of this traffic is en-route elsewhere outside of the Penns Valley Region as there are few destinations along this short stretch of road that would generate substantial volumes of traffic. Nonetheless, this is a very important corridor within Centre County and Pennsylvania that carries large volumes of passenger vehicles and trucks. It also carries many of the vehicles during "football Saturdays" in the fall when large crowds assemble at University Park. For these reasons the state has explored the improvement of this corridor as part of its larger road system.

As expected PA Route 45 is extremely important within the Penns Valley Region. Traffic volumes in Haines Township on the east end of the Region start at about 2600 ADT and build as the road moves west through the valley, nearly tripling once the road reaches Potter Township. In each successive municipality between 1000 and 2000 additional vehicles are added to the highway. It is vital that the Region recognize its reliance upon this corridor and preserve its capacity to convey traffic. Local officials have responded to this urgency by expressing goals within this Plan to preserve its high-speed carrying capacity outside of Millheim Borough and adjoining villages.

Next the PA Route 144 corridor also conveys very large volumes, particularly north of PA Route 45 and through Centre Hall Borough. Much of this traffic enters the Region from US Route 322 at Potters Mills and moves north through Potter Township. Traffic is added by PA Route 45 and then local traffic is added by residents of Centre Hall Borough and residents of the Brush Valley who converge within the Borough. The heavy volume of traffic along this road may suggest the potential future need for a short run bypass around Centre Hall Borough; however, local officials understand that the eventual completion of the SCCCTS route is expected to decrease traffic volumes passing through Centre Hall Borough and therefore intend to postpone any bypass until these impacts can be measured. Prior to any implementation of a bypass, local officials should undertake a needs and feasibility study for a short-run bypass around Centre Hall Borough.

The Region's collector roads (PA Routes 192 and 445) also offer important access within the Brush Valley area; however, available traffic counts are limited and offer little insight into travel patterns. However, given the number of "plain-sect" residents here, it will be important that adequate roadside lanes be available to accommodate the special travel needs of these residents without unduly delaying motorists who share these roads. Local officials should also ensure that the State maintains the "horse & buggy" traffic signs to warn motorists of these slower moving vehicles.

Periodically the local officials should prepare and update a list of key areas and locations that need safety improvements. Consensus should be reached by the Region's officials about the highest priority improvements, so that regional support is apparent when candidate projects are considered by the Centre County Metropolitan Planning Organization (CCMPO). This will help to advance specific improvements, or studies of key areas that in turn would yield recommended improvements. This effort is particularly important to Route 45, which is the key arterial route serving traffic movements in the Region.

The movement of goods and materials for businesses in the Region is dependent on the key arterials (Routes 45, 144, 322) as well as other key collectors (Route 192). The design of the roadways and enforcement of speed should focus on safely accommodating the

movement of raw materials and finished products from businesses in the Region, and on limiting conflicts between trucks moving goods and materials, motorized passenger vehicles, and non-motorized vehicles used by "plain-sect" residents of the Region.

D. PROGRAMMED TRANSPORTATION IMPROVEMENTS

According to Federal law and regulations, the Centre County Metropolitan Planning Organization (CCMPO) is responsible for development of the County's Long Range Transportation Plan and its accompanying Transportation Improvement Programs (TIP). This responsibility was assumed in January 2004 when the previous Centre Region Metropolitan Planning Organization expanded its geographic coverage to include the entire County.

The CCMPO works closely with the Centre County Planning Office (CCPO), and the Pennsylvania Department of Transportation (PennDOT) to identify and prioritize transportation improvement projects in Centre County. The CCMPO also cooperates with SEDA-COG (a multi-County regional economic development organization headquartered in Lewisburg) on matters concerning the movement of freight and planning associated with the statewide PA Mobility Plan

The policy-making body of the CCMPO is its Coordinating Committee, which is comprised of 19 voting members who represent municipalities, regions and other transportation-related agencies within the County. This committee is ultimately responsible for the transportation planning activities mandated in Federal laws and regulations for the County. The Penns Valley Region has a voting member on this committee.

A separate nineteen-member Technical Committee provides advisory comments and recommendations to the Coordinating Committee. The Technical Committee is comprised of the same organizations represented on the Coordinating Committee but with different members. The Penns Valley Region also has a voting member on this committee.

Federal transportation authorization legislation, the Transportation Equity Act for the 21st Century (TEA-21), outlined the primary role and responsibilities of MPOs, including long-range planning, development of a short-range Transportation Improvement Program, and public involvement efforts. TEA-21 and Federal planning regulations also specify MPO planning activities, and establish the required planning processes for these activities.

In addition to TEA-21, the Federal Clean Air Act Amendments (CAAA) of 1990 specify planning activities for MPOs, in areas where air quality does not attain accepted standards. Changes to air quality standards implemented in June 2004 result in Centre County being designated as a non-attainment area for ozone. The CCMPO is now subject to special planning activities and processes relative to air quality.

One of the basic responsibilities of the CCMPO is to approve the use of Federal funds for specific highway and mass transit projects within its geographic boundary. This responsibility is fulfilled through the development and adoption of the short-range Transportation Improvement Program (TIP). The TIP details the proposed expenditure of Federal funds, some State capital funds, and some local funds for specific projects in a

four-year period, within specified limits of financial constraint. The TIP is updated every two years.

Also the development and adoption of the long-range plan is accomplished by the CCMPO. The CCMPO's current adopted long-range plan is called "Mobility Action Plan (MAP) 2015". The Policy Element of MAP 2015 includes an extensive list of policies to guide decision-making about transportation issues. The Technical Element consists of a list of transportation improvement projects proposed to be implemented in the next twenty years. This Plan also includes strategies to offer public transportation through the Centre Area Transportation Authority (CATA).

The recommendations in the Centre Area Public Transportation Plan are being updated as part of the preparation of a new long-range transportation plan being prepared for Centre County and is expected to be completed with a new Centre County Long Range Transportation Plan in Summer/Fall 2005.

The most recent version of the TIP includes an ambitious list of 37 projects totaling over 233 million dollars for years 2005 to 2008. Three of these projects will occur within the Penns Valley Region totaling nearly $4.4 million dollars. The following tabulates those projects within the Region that are also graphically depicted on the Transportation Map.

Centre County Metropolitan Planning Organization's 2005 to 2008 Transportation Improvement Program

Project Description	Task[1]/Year 05	06	07	08	Total Cost
					Highway Projects
Old Fort Park and Ride Facility in Potter Township.	C				$380,000
					Bridge Projects
Route 45 bridge over Penns Creek in Gregg Township.	F		C		$1,460,000
Greenbriar Road (T-510) over Penns Creek in Penn Township.	F	R	C	C	$1,275,750
SR 2012 Bridge over Spruce Run in Gregg Township	U,R		C		$650,000
SR 2012 Bridge over Muddy Run in Gregg Township	P				$400,000
Back Road Bridge (T-523) in Miles Township	P				$286,106
					Total TIP Costs - $4,451,856

[1]F-Final design / U-Utility relocation / R-Right-of-way acquisition / C-Construction / P-Preliminary engineering

There are currently 2 projects on the PennDOT's 711 Maintenance Contract that lie in the Penns Valley Region. The total allocation in Centre County for the 2005 fiscal year was $2,771,592. PennDOT announces the 711 maintenance program projects on an annual basis. Several resurfacing projects have been completed in the Region in recent years. It can be anticipated that resurfacing of state roads in the Region through the 711 maintenance program will continue on a periodic basis in the future.

PENNDOT-Funded Road Maintenance Projects for Year 2005 in the Penns Valley Region

Road Name	Project Description	Cost
SR 192	Widen 3' left & right side; Centre Hall to Brush Mtn. Rd.- 7.524 miles	$265,784
SR 45	Edge and Shoulder Repairs; Boalsburg to Old Fort - 6.299 miles	$18,552
SR 144	Resurface 1.261 miles of Rt. 144 through Centre Hall Borough.	$91,970
	Total Costs of Projects within the PVR	**$376,306**

In addition, each of the municipalities within the Penns Valley Region have provided the following list of road projects that it expects to undertake in the foreseeable future:

Municipal Programmed / Planned Road Projects			
Road Name	**Project Description**	**Begin date**	**Cost and funding source***
Centre Hall Borough - None			
Gregg Township			
Middle Road	Paving from Ridge Road to Potter Twp. Line	Summer '04	$425,000 via loan to be repaid thru SLF over 7 years.
Lower Georges Valley Rd	Paving from Penns Cr. Rd to beyond Harter Rd		
Allison Rd.	Paving from Penns Cave Rd to Green Grove Rd.		
Reeder Rd	Paving		
Harter Rd	Paving		
E. Green Grove Rd.	Paving from Brush Mtn to Penn Twp.		
Ross Hill Rd.	Paving from Penns Cave Rd to Route 45	Summer "04	Same as above
Orndorf Rd.	Paving from Immel Rd to Penn Twp.		
Gingrich Gap Rd.	Tar & Chip from Route 192 to Miles Twp.		
Blue Ball Gap Rd.	Tar & Chip from Route 192 to Walker Twp.		
South Street	Drainage improvements	2005	$12,000 TWP
Vonada Gap Rd	Fill ditches with large stones	Spring "04	
Harter Rd.	Fix underpinning of bridge	Summer '04	$10,000 CO grant
Lower Georges Rd.	Install new guiderails on 2 bridges	Spring '04	$25,000 CO grant
Harter Rd.	Install new guiderails on bridge		
Reeder Rd.	Install new guiderails on bridge		
Green Grove Rd.	Install new guiderails on bridge		
Haines Township			
Fiedler Rd.	Road turnback to gravel surface	Spring '04	$40,000 SLF & TWP
Fiedler Rd.	Replace bridge at wetland and exceptional value watershed	No specific date	< $200,000 ?
Fiedler Rd.	Same as above 10 years out		Could be tied to another project
Bower Hollow Rd.	Needs a new pavement cap.		$100,000 ?
Cemetery Rd.	Evauate and correct road base; then pave.		Unknown
Pine Street	Continue work on storm sewer	Summer '04	$20,000 TWP
Miles Township			
T-863	Paving	'04	$30,000 SLF
Back Road	Bridge project	?	$450.000 FED/ PA/ TWP
Millheim Borough - None			
Penn Township			
T-512 Long Lane	Widen berms & pave	'05	$73,000 SLF
Potter Township			
Beadley Rd.	Pave – 1.5" ID2 wearing	Spring '04	$89,000 TWP
Brian Dr.			
Jacks Lane			
Oakwood Lane			
Williams Rd.	2" – ID2 wearing		
Lake Rd.	2" – ID2 wearing	Spring '04	Same as above

Municipal Programmed / Planned Road Projects			
Road Name	**Project Description**	**Begin date**	**Cost and funding source***
Decker Valley Rd.	3000 feet base project		Unknown TWP
*Funding source codes: SLF–State liquid fuels / FED – Federal funds / CO-County / TWP-Township			

The following tabulates projects that are currently under consideration by the CCMPO that have been submitted on behalf of the Penns Valley Region. These projects must compete Countywide for limited funding; therefore, the CCMPO is presently prioritizing these "wishlists" among the various regions that comprise Centre County. County staff offer that the County has been involved in many very large highway projects over the last few years and this has caused many smaller local projects to get postponed. They expect this condition to change in the future TIP funding rounds, which should enable more of these smaller local projects to be programmed.

POTENTIAL TRANSPORTATION PROJECTS UNDER CONSIDERATION BY THE CCMPO FOR THE PENNS VALLEY REGION				
Identified by:	**Location:**	**Project Name:**	**Project Type:**	**Project Description:**
CATA	Potter Township	Park and Ride Lot at SR 322 and SR144 Potters Mills	Public transportation	The CCLRTP Transit Element has identified six locations for potential Park and Ride Services. It is estimated that the design and construction of a Park and Ride facility can range between $300,000 to $750,000 per location.
CATA	Region	Expand transit service to the Penns Valley Region (specifically Aaronsburg and Centre Hall)	Public transportation	The CCLRTP Transit Element has identified 5 locations for potential County transit service. Transit service would operate minimal trips per day to allow for work commute trips and basic lifeline service
Gregg Township	Gregg Township	Ross Hill Road Bridge (T-468)	Bridge	Replace T-468 Ross Hil Road Bridge over Penns Creek (9 ton posted limit)
Gregg Township	Gregg Township	Harter Road Bridge (T-464)	Bridge	Replace T-464 Harter Road Bridge over Muddy Run (7 ton posted limit)
Gregg Township	Gregg Township	Firehall Road and Water Street (SR 2012) Intersection	Road Improvement	Convert the Firehall Road and Water Street (SR 2012) intersection in Spring Mills to a standard "T" design. Project should also include pedestrian improvements/sidewalks through the village. Project will entail cutting of the embankment and possible utility relocations
Miles Township	Miles Township	Wolves Gap Road Bridge	Bridge	Replace T-525 Wolves Gap Road Bridge over Elk Creek (5 Ton posted limit)
Miles Township	Miles Township	Brown Road Bridge	Bridge	Replace T-524 Brown Road Bridge over Elk Creek
Penn Township	Region	SR 45 and Smithtown Rd (T-455) Intersection	Road Improvement/ Safety	SR 45 and Smithtown Rd (T-455) Intersection needs improved due to poor visibility
Penn Township	Region	SR 45 Turning lane at Penns Valley School/Medical Center	Road Improvement	Need for a turning lane on SR 45 at the Penns Valley Elementary & High School
Penn Township	Region	SR 45 Turning lane at Burkholders Country Market	Road Improvement	Need for a turning lane on SR 45 at the Burkholders County Market
Potter Township	Region	Rt. 192 Safety Improvements Study	Road improvement	Implement safety improvements on Rt. 192
Potter Township	Potter Township	Rt. 45 Center Left Turn Lane (Old Fort Area)	Road improvement	Construct center left turn lane on Route 45 from Route 144 to Williams Road in Old Fort
Public Comment	Gregg Township	Bridges on Brush Mountain Road	Bridge	2 bridges on Brush Mountain Road north of Rt. 45 between Ayna and Bristow Lane

POTENTIAL TRANSPORTATION PROJECTS UNDER CONSIDERATION BY THE CCMPO FOR THE PENNS VALLEY REGION				
Identified by:	**Location:**	**Project Name:**	**Project Type:**	**Project Description:**
Public Comment	Centre Hall Borough, Potter Township	Harris Township to Centre Hall Pedestrian/Bike Trail	Pedestrian /Bicycle Improvement	Residents need a bike/trail to connect Harris Township and Centre Hall and one to connect Linden Hall with Centre Hall
Public Comment	Region	Buggy Lanes on State Route 45 and 192	Road Improvement	Buggy Lanes from Centre Hall to Laurelton area to safely accommodate Plain Folk transportation through the area. Rt. 192 could be looked at for the same improvement
SCCCTS and Safety Audit	Centre Hall Borough	SR 144 and First Street	Safety	Implement safety improvements at the intersection of SR 144 and First Street
SCCCTS and Safety Audit	Potter Township	Rt 144/Short Rd./Bible Rd. Intersection	Road improvement, Safety	Implement safety improvements at Rt. 144/Short Rd./Bible Rd. intersection, as identified in SCCCTS
SCCCTS and Safety Audit	Potter Township	SR 322 Church Hill Rd	Safety	Implement safety improvements on SR 322 at Church Hill Road
SCCCTS and Safety Audit	Potter Township	SR 322 Dogtown Rd	Safety	Implement safety improvements on SR 322 at Dogtown Road
SCCCTS and Safety Audit	Potter Township	SR 45 Rimmey Rd/Wagner	Safety	Implement safety improvements on SR 322 at Rimmey Road and Wagner Road.
SCCCTS and Safety Audit	Potter Township	SR 144 and Greens Valley Rd	Safety	Implement safety improvements at the intersection of SR 144 and Greens Valley Road.
SCCCTS and Safety Audit	Region	South Central Centre County Transportation Study	Road improvement	Improved Rt. 322 corridor between State College area and Seven Mountains
PennDOT	Gregg Township	Rt. 2014 Penn Hall bridge over Laurel Run	Bridge	Replace Rt. 2014 Penn Hall bridge over Laurel Run
PennDOT	Millheim Borough	Rt. 45 West Millheim Bridge over Elk Creek	Bridge	Replace Rt. 45 West Millheim Bridge over Elk Creek
PennDOT	Miles Township	Rt. 445 North Millheim bridge over Elk Creek	Bridge	Replace Rt. 445 North Millheim bridge over Elk Creek
PennDOT	Penn Township	Rt. 2009 Coburn bridge over Penns Creek	Bridge	Replace Rt. 2009 Coburn bridge over Penns Creek
PennDOT	Gregg Township	Rt. 2012 bridge 1 mile NW of Spring Mills over Penns Creek	Bridge	Replace Rt. 2012 bridge 1 mile NW of Spring Mills over Penns Creek

Review of the list suggests a thoughtful and reasonable set of proposed transportation system improvements that could be considered as high priorities. ***Officials should periodically review and update a list of priority projects for the Region. A consensus should be reached by the Region's officials about the highest priority improvements, so that regional support is apparent when candidate projects are considered by the Centre County Metropolitan Planning Organization (CCMPO).*** This will help to advance specific improvements, or studies of key areas that in turn would yield recommended improvements. ***Local Officials should also work together to advocate the designation of PA Routes 45 and 192 as scenic byways.***

Given the deliberate attempts to confine new developments along the Region's highways with strict access management designs, the addition of designated turning lanes at key locations will aid in highway capacity and safety without requiring massive highway widening that would induce community growth. Local officials are convinced that park-n-ride lots will facilitate convenient carpooling through the Region, like the one proposed at Old Fort. Others along Routes 45 and 192 would offer similar benefits.

Last given the Region's determined effort to preserve its rural historic character, many believe that

the resulting landscape along the Valleys' two main highways (PA Routes 45 & 192) are worthy of "scenic byway" designation from PENNDOT. "Pennsylvania Byways are designated by PENNDOT in support of local planning efforts to:

1. Enhance and improve the visual impact of specific routes
2. Maintain the natural resources and intrinsic qualities along specific routes
3. Educate residents and visitors on the history and culture of the Commonwealth
4. Provide enhanced opportunities for funding in related programs such as PENNDOT's Transportation Enhancements Program

"Any governmental entity can nominate a federal, state, or local highway, or portion thereof, to PENNDOT for consideration as a Pennsylvania Byway. If the road is not a state maintained highway, the local government or Federal agency that owns the highway must first designate the route. Concurrence from PENNDOT would designate the route a Pennsylvania Byway."[1] More nomination information is available on-line at the website listed in the footnote at the bottom of this page. Once in place this designation protects the corridor from the erection of billboards and validates other local initiatives and design regulations aimed at preserving the corridor's scenic beauty.

The last element on this list (SCCCTS) is clearly the largest in scope and cost. The project was stopped by PennDOT in March 2004 because of funding shortfalls. The project will not be restarted until the CCMPO and PennDOT can identify and commit sufficient funding to complete all future phases of the project, as part of the MPO's Long Range Transportation Plan.

Despite this setback, the Penns Valley Region intends to advocate its desired alignment of this corridor as part of its overall land use and infrastructure elements of this Comprehensive Plan. Local officials believe that the alignment identified in the SCCCTS project that crosses the southwestern corner of Potter Township following the existing Route 322 corridor offers the optimal solution for the following reasons:

1. the existing corridor has already impacted its surroundings and has created an expectation of highway access and traffic flow to local property owners;
2. this alignment offers the least threat for the division and loss of productive farmlands and disruption of active farming operations concentrated within Potter Township;
3. this alignment avoids the creation of a new highway corridor that could induce future demand for development within the Region that is committed to preservation of its historic and rural character;
4. this alignment offers the least adverse environmental and cultural impact;
5. context sensitive designs for this corridor could adequately convey through traffic movements while offering suitable access with parallel access roads to existing businesses and industries along the highway;
6. this alignment offers the greatest cost efficiency; and,
7. this alignment would be consistent with the Nittany Valley Region's official opposition to an alignment that would connect US Route 322 with the new spur interchange of I-99 just east of the Village of Pleasant Gap via an alignment that would cross Mount Nittany.[2]

[1] http://www.dot.state.pa.us/PennDOT/bureaus/PlanRes.nsf/infoBPRPABywaysNominatingInfo

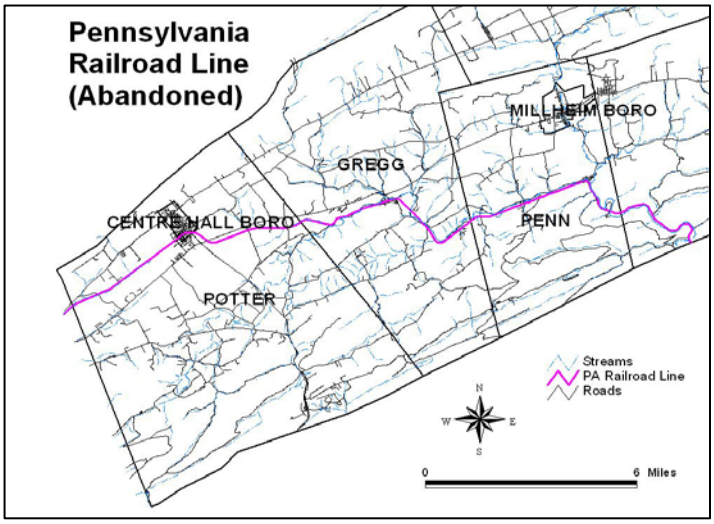
[2] Official Comprehensive Plan, Nittany Valley Region, Centre County, PA , September 16, 2004, pgs 163 & 164.

For these reasons it is suggested that the Future Land Use Plan specifically depict the proposed SCCCTS alignment following current US Route 322 and that local officials firmly advocate this position if, and when, the public alignment identification process re-emerges.

E. RAILROAD ACCESS

Pedestrian Bridge along Penns Creek Path

An abandoned Pennsylvania Railroad line generally crosses the Penns Valley Region in a northwest – southeast alignment. This line enters the Region from Harris Township on the west in a northeast direction through northern Potter Township across the southwestern tip of Centre Hall Borough and then turns southeast where it crossed PA Route 45 and generally parallels the road into Gregg Township. Once in Gregg Township the line dips south where it straddles Sinking Creek east to its junction with Penns Creek in the Village of Spring Mills. From here the line heads south following Penns Creek and then follows the stream east into Penns Township on to the Village of Coburn. Penns Creek and the railroad turn south from Coburn across the southwestern tip of Haines Township and out of the Region into Mifflin County. The southern reach of this line forms the Penns Creek Path between Coburn and the many trails that can be found in Bald Eagle State Forest including most notably the Mid State Trail which is more fully described in Chapter VII of this Plan.



While the southern reaches of this abandoned railroad have been incorporated into the Penns Creek Path, the balance was offered for "sale-back" to adjoining property owners; therefore, acquisition of this right-of-way for a rail-trail seems unlikely at best.

F. PEDESTRAIN, BICYCLE & BUGGY ACCESS

Sidewalks in Millheim

Sidewalks & Pedestrian-Friendly Streets - One of the themes of this Comprehensive Plan is to distinguish between "urban" areas where a full range of public services and utilities are provided, and "rural" areas where the protection of the natural environment is given priority over, and protected from,

development. Consequently, areas depicted for growth and development should include schools, churches and parks with convenient access to them. These "urban" areas will also, by function, include higher relative densities. Fortunately, the Regions Boroughs and Villages often include a system of sidewalks. ***It is important that the areas planned for intensive residential and other urban land uses that adjoin these Boroughs and Villages require pedestrian access and street linkages with adjoining neighborhoods.***

Sidewalks in Aaronsburg

To offset increased congestion, all proposed developments within the identified growth areas should be fitted with sidewalks and curbs that are ADA-compliant. This will reduce reliance upon vehicular traffic for short trips and promote neighborly interaction. ***In existing neighborhoods that do not have sidewalks, local officials should seek to retrofit some pedestrian linkage with nearby civic uses, schools, commercial areas and adjoining neighborhoods of the Borough.*** It may not be necessary to line both sides of every street with sidewalks, but some basic system that enables children to travel throughout the community would be a good gauge.

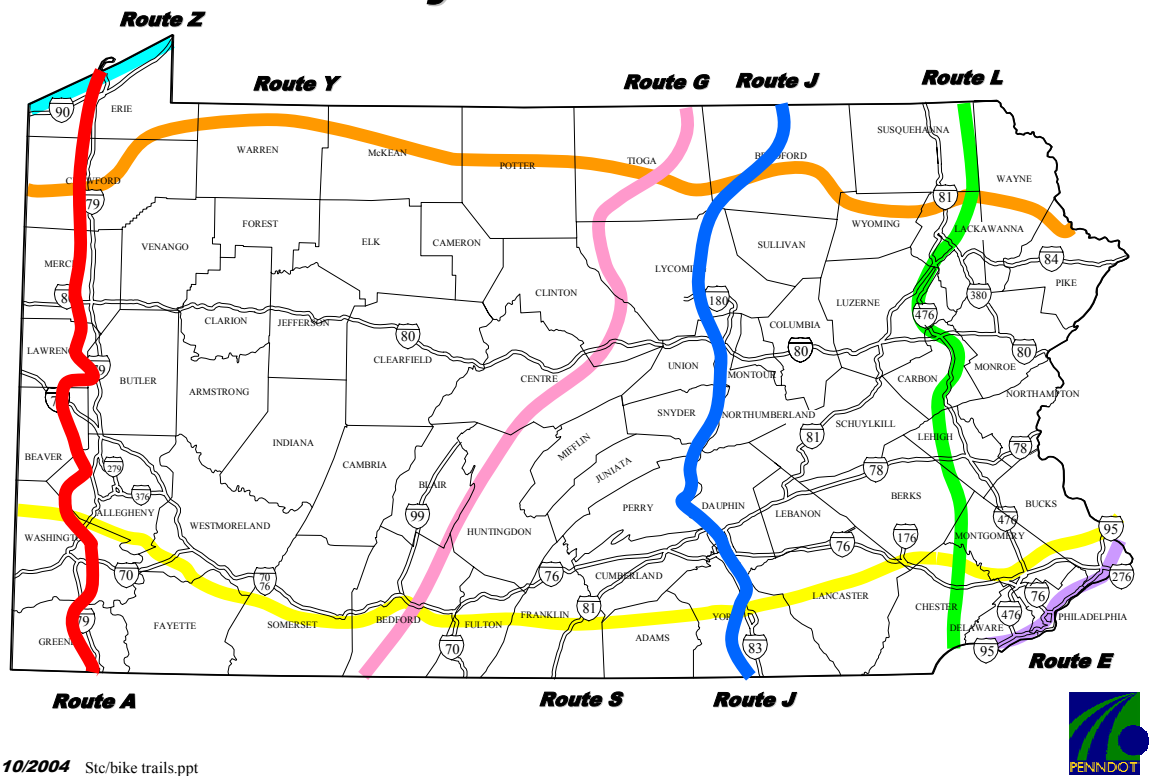
Sidewalks in Centre Hall

Also, linear paths can replace sidewalks in built-up areas that are highly improved along the street. This approach will better integrate residents and reduce their automobile dependency. ***During the land development process, accommodations should be made for the location and construction of transit stops at significant development locations, in anticipation that transit service will be provided in the future. It is noted that the Region's list of submitted needed transportation improvements to the CCMPO includes CATA bus service extension into Centre Hall and Millheim Boroughs, Gregg, Haines, Penn and Potter Townships.***

Bike Routes – Centre County has 19 different bike routes totaling 21.7 miles; however, the majority of these bike routes are contained within the Centre Region and do not extend to the Penns Valley Region. Additional bicycle facilities are identified in the Nittany and Bald Eagle Greenways Study, and on the Official Maps of several municipalities in the Centre Region. In addition 8.75 miles of off-road bike paths are planned within the foreseeable future; again principally within the Centre Region.

Pennsylvania has hundreds of miles of statewide bicycle routes, both on and off-road, used for travel, tourism and recreation as illustrated on the following map. Within the Penns Valley Region, Bicycle PA Route G is a north/south statewide bicycle route from Maryland to New York that passes through Ferguson, Harris, College, Potter, Gregg, Miles and Walker Townships and Centre Hall Borough within Centre County.

BicyclePA Routes



10/2004 Stc/bike trails.ppt

Arguably, many designated bike routes are a byproduct of society's reliance on automobile and truck movements. Road design standards that favor higher vehicle speeds and greater commuting distances dissuade efficient and safe bicycle travel. Hence, it becomes necessary to provide for separated routes for bicycles and pedestrians.

By contrast, "livable communities" balance the need for vehicular travel with pedestrian and non-motorized modes of transport. For example, consider the traditional grid road pattern and streetscape design within Centre Hall and Millheim Boroughs and the Village of Aaronsburg. Here bicycle and pedestrian travel is logical and safe despite vehicle congestion***. Street designs of these tightly-knit towns inherently incorporate traffic calming features that enable motorists and bicyclists/pedestrians to coexist.***

Also neighborhood linkages provide residents with ready pedestrian/bicycle access to a variety of businesses, civic uses and activity centers. The same street design features and community linkages can and should be applied to new residential neighborhoods that result from this plan. In addition, areas planned for growth should be compact with densities that keep motorists expectations for vehicle speeds lower than in the suburbs. Then it will be unnecessary to identify specific bike routes as all forms of transport can "share the road." It is important to understand that this discussion relates to local streets within neighborhoods. The mixing of bicycles/pedestrians along heavily traveled highways with high speed limits will still require some physical separation.

However, rural settings also present valuable opportunities for bicycling. Many of the "less-traveled" roads within the lower valleys offer terrific settings for rural cycling. In addition, some of the recommended shoulder widenings (PA Route 192 & 445) presented earlier in

this Chapter would facilitate improved cyclist safety. It has also been suggested that the Region develop specific bike routes that connect local bed and breakfasts for weekend or extended bicycle-based travel and tourism.

One interested citizen offers the following suggested routes:

> *"I would begin along the State Route "G" from Harris Township to Centre Hall down the Millheim Narrows into Millheim. I would then designate 3 loops that could connect to the main line. One would leave Route "G" and go to Farmers Mills, Spring Mills. The other would loop from Millheim to Coburn and back to Spring Mills. The third loop would connect Spring Mills and Colyer Lake and Back to Harris Township through the mountains.*
>
> *"This should be done with input from the biking community and the business community. You could have tourists stay in one Bed and Breakfast one night and in another the next. You could filter these tourists in and out of the community that could benefit local businesses and will provide recreational activities for the community. It could be as simple as a map and color coded sign posts to mark the loops."*[3]

It is noted that the Region's list of submitted needed transportation improvements to the CCMPO includes a request, made by a Penns Valley resident at a Long Range Transportation Planning workshop in 2004, for pedestrian and bicycle improvements to link Centre Hall Borough and Potter Township with facilities in Harris Township. ***Local Officials may wish to consider the above-described rural bike routes in future transportation improvement funding cycles, particularly as an enhancement to the potential designated scenic byway status.***

Horse & Buggies – The Penns Valley Region has a substantial plain-sect population whose religious beliefs prevent their use of motorized vehicles and farm equipment. These residents present real benefit to the Region in the form of preserved and active farmlands. Given the speeds of vehicles traveling the Region's major roads, it is important that these roads be fitted with paved shoulders of sufficient width to accommodate these slower moving buggies. The "Non-Motorized Vehicle Study" prepared by the Lancaster County Planning Commission (Lancaster County has a very high concentration of plain-sect residents within Pennsylvania) indicates that most buggies are six feet wide; therefore it recommends that paved shoulders be a minimum of eight feet in width. This same standard was applied in recommending needed road improvements to the Regions arterial and collector roads presented earlier in this Chapter (pages 175 & 177).

Along with paved shoulders, adequate roadside signage is also helpful in alerting visitors to the Region who may be unaware of the considerable horse and buggy travel. Some signs exist but additional signs would be helpful. ***Finally, municipalities with areas of concentrations of plain-sect residents should accommodate the keeping of horses as a primary mode of transport as an accessory residential use.***

[3] Written comments from Bill Fleckenstein offered in April, 2005.

G. MASS TRANSIT

The **Centre County Office of Transportation (CCOT)** operates a shared ride program where a van is pre-scheduled to pick-up multiple riders at their origins and delivers them to their destinations. This service extends throughout Centre County and is principally oriented to senior citizens and those with disabilities.[4] Presently the service operates during weekdays between the hours of 8:00 A.M. and 4:30 P.M.; however, there are efforts to extend these hours into the evening. In addition, the agency delivers hot meals once per day; today between 16 & 20 meals are delivered within the Penns Valley Region each day.

The **Centre Area Transportation Authority (CATA)** operates three modes of public transport. First CATA operates its **fixed-route bus service** involving 23 routes anchored in downtown State College and on the Campus of Penn State. Generally these routes radiate into adjoining municipalities. CATA's buses are all equipped with bike racks to enable riders to use dual forms of transit and extend access to recreation opportunities along designated routes and their surroundings.[5]

Presently CATA's fixed bus routes do not extend into the Penns Valley Region; however, CATA's recently adopted Strategic Plan identifies the Penns Valley as one of several potential corridors for regional commuter bus service, which should be evaluated further in future years. However, CATA's organizational structure requires municipalities outside of the current service area to contribute local matching funds for service. The current service area includes five municipalities, and service is also provided to two other municipalities that contribute funding on a contract basis. Thus, institutional and funding issues must be addressed before transit service to the Penns Valley Region is considered to be feasible.

The **Centre Area Transportation Authority (CATA)** also operates a **demand responsive curb-to-curb service** within its service area. Much the same as the CCOT service this is a shared ride mode requiring advance reservations. This CATA program also provides complimentary paratransit service in compliance with the Americans with Disabilities Act.[6]

The **Centre Area Transportation Authority (CATA)** also **operates special shuttle services** during special events like Penn State Football games, Central Pennsylvania Festival of the Arts, Bellefonte Arts & Crafts Fair, Bellefonte Victorian Christmas and others. **CATA's Ride Share** program matches registered commuters with similar schedules and destinations for potential carpooling.[7] " The Rideshare service is free, and includes a Guaranteed Ride Home program.

[4] Orth-Rodgers Associates, Inc. Centre County Comprehensive Plan Update Transportation Element, May, 2003 p.28.
[5] http://www.catabus.com/
[6] Orth-Rodgers Associates, Inc. Centre County Comprehensive Plan Update Transportation Element, May, 2003 p.28.
[7] Ibid, ps.28-29.

CATA and the CCMPO continue to work with PennDOT on the design and construction of the Old Fort Park and Ride Lot, which will be located near the intersection of Routes 45 and 144 in Potter Township. The park and ride lot will include spaces for 50 vehicles, and will include accommodates for future transit service. Construction is scheduled to begin in early 2006.

Local officials should work with the CCMPO and CATA to study the feasibility of commuter bus service to the Penns Valley Region, and to address institutional and funding issues associated with the provision of fixed route bus service to the Region.

H. AIRPORTS

Centre County has six public use airports. Within the Penns Valley Region is the Penns Cave Airport and the Centre Airpark Airport. "Penns Cave Airport is a public-use, privately-owned airport located along Brush Valley Road east of Centre Hall in Gregg Township. Airport facilities consist of hangars and tie-down facilities for the aircraft. The airport is not in operation during the winter months.

"In 2001, the airport accommodated approximately 21 aircraft per week, which included 82 percent local general, 9 percent transient general, and 9 percent air taxi. In addition, the airport has approximately four aircraft based on site, which include three single-engine aircraft and one helicopter." [8]

"Centre Airpark Airport is a public airport, which serves Centre Hall and Centre County and is owned by Lewis A. Garbrick. The turf runway extends for 3100 feet. The facility is at an elevation of 1307 feet at a distance of about 2 miles from Centre Hall. There are hangars and tiedowns on site and 12 aircraft are currently based on site including 7 single engine aircraft, 1 multi-engine aircraft and 4 ultralights. The airport accommodates approximately 42 aircraft per week, which included 91 percent local general and 9 percent transient general. The runway is not maintained during winter months." [9]

Local officials should coordinate their community development goals to accommodate these airports within the Region prevent the development of new uses that would adversely affect, or be adversely affected by, it. Gregg and Potter Townships should continuously ensure that its zoning regulations limit potential structure height in areas within the Airport's Hazard Zones.

[8] Orth-Rodgers Associates, Inc. Centre County Comprehensive Plan Update Transportation Element, May, 2003 ps.34.
[9] http://www.ohwy.com/pa/n/n16.htm and http://www.airnav.com/airport/N16.

X. Future Land Use

One element important to the comprehensive planning process is the charting of appropriate future land uses and growth areas. This effort embodies all of the background information collected regarding natural features, public facilities and utilities, existing land use, population studies, and traffic patterns. Then, these resources are allocated in a manner that responds to the Region's desires, as expressed in the Community Planning Goals in Chapter II. ***What results is a future land use map that should be used to adjust zoning boundaries, and help properly locate future municipal investments, so as to maximize their efficiency. This chapter should be used in conjunction with the Future Land Use Map. Also, the Future Land Use Plan can guide and justify decision making regarding all sorts of other municipal activities and functions (e.g. grant applications, utility and infrastructure planning, public improvements and investments, etc.)***

The preparation of the Future Land Use Map was accomplished according to several "ground rules"; an understanding of these "ground rules" will lead to a better understanding of the Plan's recommendations.

First, this Plan is designed to address future conditions until the year 2020. Accordingly, future growth areas have been generally located and sized to accommodate the growth that is projected during this time frame. This results in a "staged" future land use scheme that (1) reduces the conversion of productive farmlands and sensitive natural features, (2) confines development areas so that public improvements and services can be provided efficiently to a compact area, and (3) predominately focuses infill development around existing settlements. ***The benefits of this approach are significant, but require that the municipalities commit to the Plan's updating on or before the year 2020.***

Second, local officials are keenly aware that the proposed SCCCTS route, as described in the previous Chapter, can have a profound effect upon the future of the Region's land use pattern. Accordingly, they are committed to the previously described alignment that closely follows the current US Route 322 corridor and presents the least potential adverse impact to the Region. The Future Land Use pattern presented in this Chapter is premised upon the potential for the SCCCTS route along this selected alignment. It fully contemplates the construction of a limited access highway across the southwest corner of Potter Township. The suggested land uses along US Route 322 reflect the extent of development potential desired even after the highway is built. Furthermore, local officials would strongly object to the construction of any interchange within the Region as it could produce an inducement to large-scale development that would conflict with the Region's overall community development objectives.

Third, a great deal of emphasis was placed on existing land uses in developed areas. In some limited cases, existing development types were recommended for changes to another land use category to enhance compatibility. In rare instances, existing uses were not reflected to suggest the need for change within that given locale toward which regulatory efforts can strive. Similarly, isolated land uses within the rural landscape are not identified

unless they are large enough in scale to represent regional consequence. This helps to convey the Plan's overall approach towards targeted growth in designated growth areas and conservation of outlying natural features and farms. Furthermore, this document deals with future land use on a property-by-property basis; however, in rural settings individual home sites are not reflected as they are considered a part of the rural landscape. Overall, this emphasis on existing land use will keep the Plan practical and should make it more useful to local officials in their evaluation of future land use decisions.

Fourth, based upon regional goals to concentrate development around the "edges of town" and where public utilities can be provided, much of the designated future growth is located within close proximity of existing Boroughs and Villages with available utility lines. Regionally, the Plan attempts to distinguish between "town" areas in which planned growth will be served by public utilities and services, and the "country" where agricultural preservation and the conservation of natural features is the priority along with protection of a rural independent lifestyle.

Fifth, another important goal that strongly influences the future land use pattern relates to local business promotion. Local officials hope to promote local business ownership and operation, offer locally-based employment and generate local tax revenues. Therefore, the Plan proposes commercial and industrial nodes at logical locations in each municipality that offer such benefits but are sized, configured and located to avoid the invitation of national franchise operations and big-box outlets. While the Region intends to provide for the uses that these big national stores offer, it will attempt to ensure that such uses are "home-grown" and won't threaten other local economies. It is noted that the Haines Township future land use scheme relies heavily upon its separate and independent planning process that was undertaken during the preparation of this Plan.

Next, this Comprehensive Plan will only be effective if it is implemented. While there are numerous recommendations made throughout the Plan that do not require new regulations, land use protection will ultimately demand zoning regulations. The Penns Valley Region is fortunate to still possess its historic character which is relatively unaffected by the many "modern" land use trends that have strongly affected nearby communities within Centre County and central Pennsylvania. In other areas, much of the charm that still remains within Penns Valley has been long gone and replaced with suburban sprawl that is generally indistinguishable from one community to the next.

Society has begun to understand this problem and is demanding new approaches to land use controls that are gaining acceptance. ***While, Penns Valley still retains its character, unless forceful action is taken in the form of deliberate zoning requirements, new suburban style developments will take hold and gradually overtake the Region.*** Several examples already exist and more are proposed. Until now, several of the Region's municipalities have resisted zoning regulations, presumably based upon a lack of imminent development threats. However, this Comprehensive Plan must look forward and respond meaningfully to the Region's plea to retain its rural historic character.

With so much at stake, it will be important for all municipalities within the Region to eventually adopt some form of land use controls. It is recommended that local officials from the Region cooperate and assist one another in developing simple yet effective land use regulation strategies that can cover the entire Region and not merely shift development from one municipality that has zoning to another that does

not. Based upon the regional allocation of land uses across the Region, many of the burdens associated with development of a municipal zoning ordinance are eased as not all land uses must be accommodated. This can lead to a more simplified zoning scheme that should be less intimidating and simpler to administer. Also, if several municipalities work together in developing their ordinances, not only would the cost of the ordinance be lessened and more consistently applied across the Region, but it may be beneficial to share a part-time zoning officer who would then be familiar with both similar ordinances.

Fortunately, the staff of the Centre County Planning Office have been deeply involved in the formulation and adoption of this Plan; they have a high level of understanding about the Plan's goals and strategies. This institutional knowledge should enable an effective process of zoning ordinance development, adoption and enforcement. ***Obviously, such an effort would require considerable manpower and the Region should lobby County Officials for such manpower and resources at such time as action is warranted.***

Last, this Chapter establishes a cornerstone of the Comprehensive Plan and will directly implement one of the goals articulated at the outset of this planning process by local officials as follows:

> ***"Structure the Plan and its policies to enable a regional allocation of various land uses through the future development of one regional or individual zoning ordinances."***

The regional allocation of land use is a recent advancement available within Pennsylvania. The Municipalities Planning Code (MPC) has two applicable sections that enable this technique:

1. Section 811-A. of the MPC specifically authorizes a regional allocation of land use when a regional plan is adopted and implemented through a joint zoning ordinance of the participating municipalities. It states:

   *"**Area of Jurisdiction for Challenges.** In any challenge to the validity of the joint municipal zoning ordinance, the court shall consider the validity of the ordinance as it applies to the entire area of its jurisdiction as enacted and shall not limit its consideration to any single constituent municipality."*

2. Section 916.1.(h) of the MPC specifically authorizes a regional allocation of land use when a regional plan is adopted and individual zoning ordinances generally implement the Plan. It states:

   "*Where municipalities have adopted a multimunicipal comprehensive plan pursuant to Article XI but have not adopted a joint municipal ordinance pursuant to Article VIII-A and all municipalities participating in the multimunicipal comprehensive plan have adopted and are administering zoning ordinances generally consistent with the provisions of the multimunicipal comprehensive plan, and a challenge is brought to the validity of a zoning ordinance of a participating municipality involving a proposed use, then the zoning hearing board or governing body, as the case may be, shall consider the availability of uses under zoning ordinances within the municipalities participating in the multimunicipal comprehensive plan within a reasonable geographic area and shall not limit its consideration to the application of the zoning ordinance on the municipality*

whose zoning ordinance is being challenged."

These sections authorize this Plan's use of a regional allocation of land use to be implemented through zoning ordinance(s) that are administered in a manner generally consistent with this Plan. While the Region can allocate its land uses regionally, local officials have expressed the desire to have each municipality share in the overall pattern of land use growth. While some specific land uses will not be planned in each municipality, each will share in residential, commercial and industrial growth. This Chapter presents recommended land use categories depicted on the Future Land Use Map that can be used as a basis to guide subsequent zoning policies; however, some flexibility will be incorporated to accommodate local discretion. ***Local officials should refer any proposed zoning design standards to local fire companies for review and comment to ensure emergency vehicle access.***

A. AGRICULTURE

Throughout history, agriculture, which include forestry, has played a primary role within Pennsylvania, Centre County and the Region; today, this is still true as evidenced in Chapter VII (Existing Land Use). As the Soils and Geology Map contained within Chapter II (Natural & Cultural Features) of this Plan reveals, the Region also contains a generous amount of prime agricultural soils and agricultural soils of statewide importance.

Prime farmlands of the Brush Valley. Image source: Norman Lathbury

These prime farmlands are concentrated in the Brush and Penns Valleys and each of the Region's Townships, Centre Hall and Millheim Boroughs share in these productive settings. These fertile areas have a characteristically flat to gently rolling landform. These areas contain one of the highest concentrations of farms that are restricted by Agricultural Conservation Easements and are part of the designated Agricultural Security Areas. Although some parcelization and development has occurred here in the past, a suitable critical mass of this landscape is still devoted to a variety of agricultural operations. These resources are being put to good use by the Region's farmers who have largely embraced the need to preserve their farms.

In planning for agricultural land, which includes forest land,the Region should adopt a philosophy and policy not to consider agricultural land as "undeveloped farmland awaiting another use." Rather it should be viewed as "developed land" that is being used to produce a valuable product. Farming is a land-intensive, manufacturing process that converts raw materials into a product, comparable to other industrial operations, with occasional accompanying impacts of noise, odor and dust. Therefore, this plan advocates a position that this agricultural area not be considered as a holding zone, but as an area having a positive purpose of utilizing the Region's natural and non-renewable resources for the benefit of the entire community and beyond. This agricultural area should be protected by zoning regulations that prevent interference by incompatible uses which weaken the ability

to conduct normal farming practices.

Traditionally, farming has involved the growing of crops for either sale off of the farm or for consumption by animals on the farm with the subsequent marketing of either meat or milk. Thus, the viability of the farming operation was very much tied to the productivity of the land. Recent years have seen the advent of concentrated animal feeding operations (CAFOS). These involve the concentration of large numbers of cows, hogs or poultry on a single tract of land with the feed being bought off-site. Because the food these animals eat is often not grown on the tract of land where they are housed, very high animal concentration can be achieved. These highly concentrated operations often create acute odor impacts on neighboring residents. These odors can arise from the animals themselves, but more often from their waste products, both at the site where produced and where they are land-applied. Agricultural zoning ordinances enacted by a municipality should be consistent with, but cannot be more restrictive than PA Act 38 of 2005 (House Bill 1646) Agriculture Communities and Rural Environment (ACRE), or any legislation superceding PA Act 38 of 2005.

Past absent or lenient zoning policies have enabled the development of numerous rural homes are stripped-out along the roads within the agricultural landscape. ***Nonetheless these homes exist and future zoning regulations should specifically permit them as permitted uses within this area.*** In so doing the homes avoid the classification as nonconforming uses. This will enable residents to make logical adjustments to these lots/homes without the need to gain approval from a local zoning hearing board for variances or expansions to nonconforming uses. However, future residential lots within the Agricultural area should require careful design and layout so that such residences minimize common property lines with active farming operations. The use of rural clusters where several homes share unified street access and minimize borders with adjoining farms improve compatibility. Local officials should require private and community water wells to have a minimum setback of 100 feet of active farm practices in order to minimize the possibility of contamination from the application of herbicides and fertilizers.

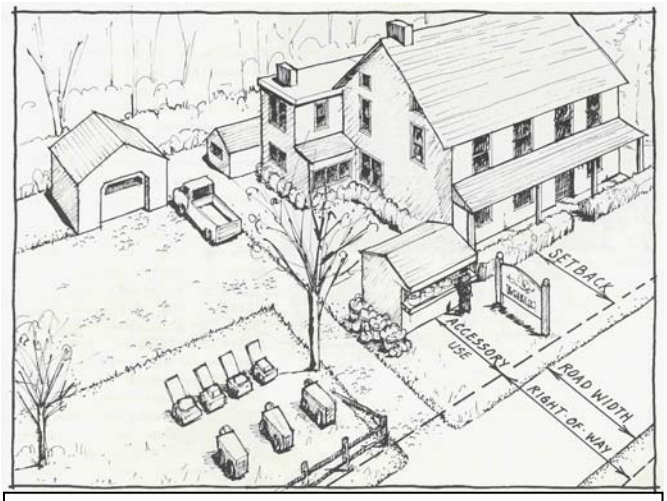
Finally, uses within this area will rely upon on-lot sewage disposal systems (OLDSs). On-lot disposal systems, if constructed and maintained properly, can provide a reliable and efficient means of wastewater treatment in rural and suburban areas where population density is low. However, where such systems are improperly installed or not maintained, contamination of on-site water supplies can result.

Therefore, it is recommended that the municipalities adopt and implement an OLDS management program. Such a program would require the routine maintenance of systems to include the "pumping-out" of subsurface septic tanks on a 3-year cycle. Specifically residents would be required to submit receipts from licensed "pumpers" once every three years or be subject to penalty and fines. This practice is gaining acceptance across the State as DEP reviews newer Official Sewage Plans. More importantly, it makes good sense. The extension of public sewers across the countryside is an expensive proposition which usually falls to local government when malfunctioning systems occur. An OLDs management program is preventive maintenance that avoids costly public investments that only serve a few residents. This should be an important component of any updates and / or new Act 537 Plans, as they occur.

Along the same lines, there should be flexibility for on lot sewers to accommodate the primary disposal site and another replacement disposal site to be approved by

the Township SEO. Furthermore, the Township Zoning Ordinance should also require that any permit issued for a new use that would rely upon a new OLDS, specifically depict and protect the alternate disposal site from disturbance.

As an alternative to freestanding lots with separate on-lot utilities, the Townships could also permit the use of conservation design subdivisions that could employ low-tech community based utility systems. Here greater density can accommodate the few homes on less acreage and avoid disruption of adjoining farming operations. This will require greater administrative effort and more advanced zoning techniques than some of the Townships may be willing to employ, but this option is useful in blending farming with rural neighborhoods. It is important to note; however, that local officials should always be mindful that the primary purpose of this land use category is to accommodate active farming and the more homes that are placed within the midst of agriculture, the more opportunity for conflicts will increase. Conservation design neighborhoods should incorporate design standards to use the "required" open space to buffer the homes from impacts associated with normal farming practices. Local officials should consider an "Accessory Use" provision for existing homes to include additions or apartments for family and extended family members.



Farm stands and accessory businesses are valuable features in an agricultural setting. Image Source – Chester County Plan. Comm.

Next, the use of accessory businesses should be permitted within the Agricultural area to offer close-to-home employment and promote local rural-based tourism. Home occupations should be confined to uses that can be adequately conducted from within the dwelling unit itself with limited non-resident employees; these uses can be permitted by right. Rural occupations expand on the home occupation concept and enable other more intensive uses that can make efficient use of rural outbuildings and outdoor storage. Here impacts of noise, light, traffic, dust, hours, screening and odor should be scrutinized prior to approval to ensure that adjoining properties are not adversely affected. Farm occupations (e.g. accessory businesses, auxiliary enterprises, etc.) should be encouraged to financially assist active farming operations and can be conducted in barns. Here local residents from the site and its neighborhood can engage in non-farm activities provided the impacts are contained upon the site and the operator continues to farm. In all cases (home, rural and farm occupations) the applicant should demonstrate safe means of waste disposal that does not threaten the environment.

Beyond the "accessory occupations" described above that are associated with another principal use, some rural communities also permit freestanding farm-related businesses as principal uses. These are usually tied to offering some

service or goods used by local farmers with up-set size limitations so that proper local scale is achieved. Farm equipment dealers, seed and fertilizer distributors, blacksmiths and buggy shops, dry goods stores are examples of suitable farm-related businesses. This approach has been particularly useful in meeting local plain-sect farmers needs who are less mobile and can benefit from convenient and safe access to nearby businesses. Land owners expanding their businesses as their principal source of revenue, may be subject to Clean and Green penalties because the business changes the land use from agriculture to commercial.

Because of the rural character of the Region, the Townships should locate certain uses (e.g. golf courses, airports, campgrounds, shooting ranges, and etc.) within this area to offer suitable opportunity for such uses and separate impacts from more densely developed settings. Some of these should require conditional use approval to ensure that they are located, designed and operated in a manner that is compatible within the rural setting.

Although an effective agricultural zoning ordinance can help preserve farmlands in the short run, certain legal principles on accommodating growth can threaten their long-term integrity. Therefore the Region should continue to support the County's Agricultural Conservation Easement Program, the Centre County Farmland Trust and the respective Township's Agricultural Security Area programs. Certainly easement funds are limited and all prime lands cannot be purchased immediately. Local officials should consider providing funds annually to the County Agricultural Land Preservation Board. Local Officials may want to consider a voter referendum on earned income as a funding source. Funds certified by the County are matched by the Bureau of Farmland Preservation over and above the Bureau's annual allocation. Therefore, local officials should commit to the preservation of farmlands through zoning until easements can be purchased through this program. Also, it may be beneficial for one or more municipalities to implement a transfer of development rights (TDR) program to financially compensate farmers in lieu of residential development; although this may lead to increased development potential in localized areas of the region where the development rights would be used to increase development density.

The Agricultural category includes large areas within the Region's high-quality and exceptional value watersheds. Historically, intensive agricultural production has created surface water degradation due to erosion and the application of fertilizers. The Agriculture Communities and Rural Environmental (ACRE) Initiative, PA Act 38 of 2005, provides the regulatory framework for nutrient management and non-point source pollution abatement ***Local officials should work with the Centre County Conservation District and employ a variety of techniques that encourage farmers to install riparian buffers along the creek and its tributaries.***

Photo of creek with and without a riparian buffer through farmland.
Image source: York County Planning Commission.

Local officials should be encouraged to consider a riparian buffer ordinance in those areas where water quality is or could be significantly degraded by non-agricultural operations. Then compliance should be required whenever a zoning permit is needed. Tax assessment officials should be required to reduce assessed values of agricultural lands within riparian buffers

Farmers should also be educated about the various state and federal conservation programs and income tax deductions that are made available to property owners who place conservation easements upon their properties for riparian buffers. Local watershed groups, local officials, and County, State and Federal agencies should partner with landowners to improve surface water quality using best management practices.

A sample riparian buffer ordinance is presented on page 211 of this Chapter and additional discussion can be found on pages 25-28 of this Plan.

To manage these issues, it is recommended that a new effective Agricultural category be applied to this area with the following components:

1. ***A deliberately worded purpose statement that cites the valid public purpose to protect and preserve prime agricultural soils and valuable farming operations in compliance with Section 604.(3) of the Municipalities Planning Code;***
2. ***An unobtrusive regulatory approach to farms conducting normal farming operations;***
3. ***A fixed ratio of permitted residential density, for all agricultural lands, determined by local officials, that restricts development potential. Land owners should be aware of the Clean and Green Law,*** **Chapter 137b issued under section 11 of the Pennsylvania Farmland and Forest Land Assessment Act of 1974 (72 P. S. § 5490.11),*;***
4. ***A minimum and maximum lot area of 1 and 2 acres, respectively, for non-farm uses;***
5. ***Liberal accessory use regulations that specifically include farm occupations, roadside stands and other rural pursuits, and freestanding farm-related businesses provided that these uses have little impact and that adequate provision is made for the safe disposal of wastes;***
6. ***Siting standards for future dwelling units proposed that protect sunlight easements/equipment turning radii onto adjoining farms and locate homes so as to minimize land use conflict;***
7. ***Language that specifically authorizes pre-existing homes as permitted uses;***
8. ***An Agricultural Nuisance Disclaimer that informs prospective residents of the potential impacts associated with normal farming practices that are protected under the PA Right to Farm Law and the PA Agricultural Security Law and Agriculture Communities and Rural Environment (ACRE), PA Act 38 of 2005;***
9. ***Alternate OLDs protection and maintenance and the possible use of conservation design with community systems;***
10. ***Siting of certain large-scale land uses separated from residential areas; and;***
11. ***A riparian buffer requirement to protect surface water quality, particularly in designated "high-quality" and "exceptional value" watersheds.***

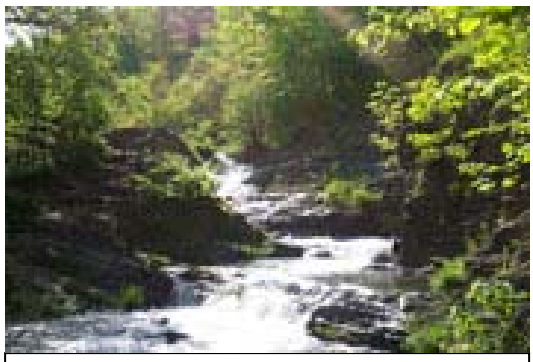
B. CONSERVATION

The Penns Valley Region is blessed with considerable natural diversity. One of the most important landscapes takes the form of rocky and wooded hillsides and ridges that are difficult to develop yet offer protection of surface water quality. At the same time these areas present significant natural habitats and passive recreation opportunities. Other lower-lying areas contain valuable wetlands and sensitive floodplains; these areas, too, hold the same value. It is not surprising that protection of these resources is foremost in the minds of many local officials and residents.

Due to the Region's topographic position, all of the Townships within the Region share in these critical areas. Current case law suggests the limitation of residential development within these areas at 1 dwelling unit per each 3 acres. This precedent is based upon a case in which a municipality sought to impose a minimum lot size greater that 3 acres which was successfully challenged. The Court decided that requiring such a large lot size was exclusionary because it elevated the cost of building lots to a point where many would-be residents could not afford them.

Typical cabin in Rothrock State Forest

On the other hand recent amendments to the Municipalities Planning Code emphasize the need for local governments to strengthen their protection of natural features. By applying a ratio form of zoning density (like that in agricultural zoning) where a lot is permitted based upon a prescribed number of acres, the number of new units allowed can be kept low to protect the overall setting while at the same time keeping the cost of lot ownership reasonable. This approach has the added benefit of reducing the impacts to the natural areas by confining disturbance and clustering development in a smaller area. This enables the "critical mass" of woodlands and habitats to remain intact while not depriving prospective landowners of "reasonable use" of their land.



Penns Creek

It is not known if the legal system will support as restrictive an approach in a conservation setting as it has in an agricultural context. However, given the predominate role that these areas play in protecting environmental quality, the Region's public supply of groundwater and eco-based tourism and recreation, the Region would seem to provide a strong argument for such an approach. Similarly, its local officials understand and are committed to the need to protect these areas in their natural state. ***For this reason it is recommended that the Region apply this approach in Conservation areas. These areas should enable the development of detached homes at a rate of one per each 5 to 10 acres but that the minimum lot size could be as little as one acre with the balance of the parent tract left in an undisturbed condition. Like in the Agricultural areas, the Townships could also permit the use of conservation design subdivisions***

that could employ low-tech community based utility systems. Here greater density can accommodate the few homes on less acreage and avoid disruption of adjoining natural features. Conservation design neighborhoods should incorporate design standards to use the "required" open space to protect sensitive natural features and provide for habitat linkages.

The following diagram depicts one possible neighborhood design that incorporates this conservation design concept.

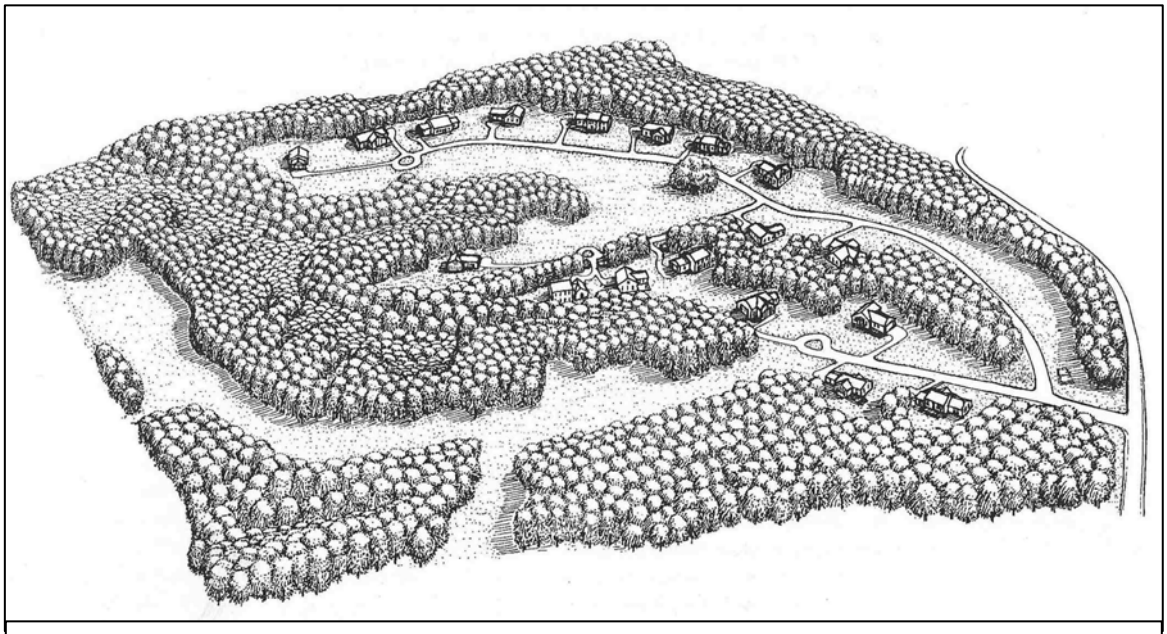


Image Source: Growing Greener, Natural Lands Trust, Inc., PA Dept. of Conservation & Natural Resources, Pennsylvania State University Cooperative Extension Service, April, 1997. Cover

For this approach to work optimally, it is important that several other features be integrated within Conservation areas.

First, a certain amount of design flexibility should be "built-into" this area. Minimum lot sizes should be at least one acre in size to accommodate on-lot sewers with primary and back-up disposal fields. Lot width, and setback requirements should be kept small so that homes can be situated amid the rugged terrain without the need for variances. Flag lots and joint use driveways can be used judiciously to tuck small clusters of homes amid the "nooks and crannies" of a natural landscape thereby enabling the preservation of vast and/or inter-connected areas elsewhere on the same parcel.

The locations of various conservation features have been depicted on the Natural Features Map contained within Chapter III of this Plan. Similarly, the Soils and Geology Map (also within Chapter III) depicts soils with severe development constraints for buildings and on-lot sewers. All of these features form the basis for the assignment of the Conservation area. In addition they offer some general perspective on the presence of conditions with a given locale. However, the specific location and extent of these features will require more detailed refinement and analysis during preliminary plan review of the subdivision process. Furthermore, the Region has a wealth of identified habitats with threatened and

endangered species as identified on the Natural Features Map. ***Consequently, applicable subdivision and land development regulations should require the preparation of an environmental impact report as a prerequisite to subdivision of new lots.*** This report should require an applicant to identify important natural features on the site and keep proposed development activities away or manage impacts within acceptable levels. This will require considerable work on the part of an applicant and the municipalities but will ensure that proposed developments are designed to respect the Region's many valuable natural features.

A recent amendment to the MPC requires that forestry uses be permitted by right within every zone of every municipality within the Commonwealth. Since forestry uses typically occur within conservation settings this discussion is presented here; however***, each municipality with a zoning ordinance must revise its ordinance to permit forestry uses in each of its zones.*** At about the same time, the Pennsylvania State Township Association of Supervisors (PSATS), Pennsylvania State University (PSU) and PA Department of Conservation and Natural Resources (PA DCNR) prepared a model ordinance to help regulate and monitor forestry operations. ***A slightly altered copy of this model ordinance is contained on page 210 and should be reviewed and adapted for use as a general zoning provision applied to every property within each municipality.***

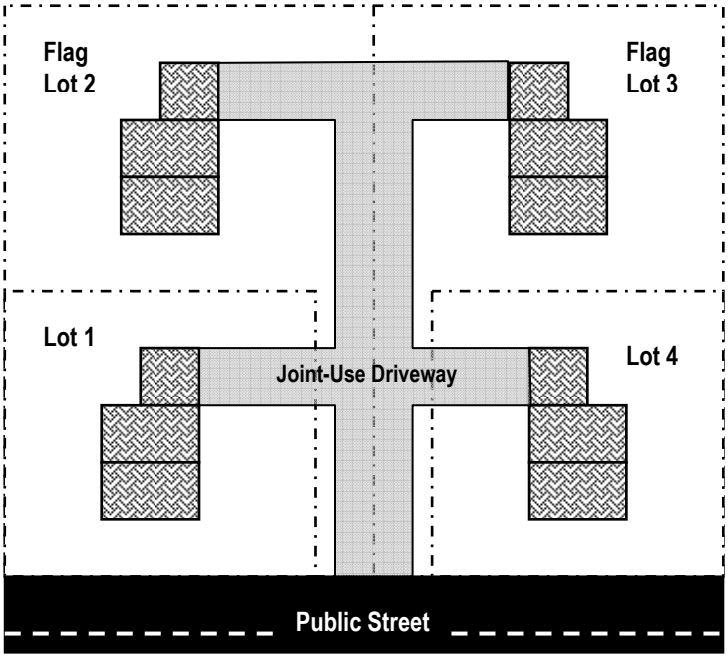
In addition to the Conservation areas depicted on the Future Land Use Map, FEMA Floodplains, US Department of Interior Wetlands and Riparian Buffers have been overlain upon the Region. While protection of floodplains and wetlands are widely accepted land use management techniques, recent awareness of diminishing surface water quality suggests the need for more protection for surface water. Since most of the Region contains State-designated "High-Quality" or "Exceptional Value" watersheds, this too is an important local topic.

Studies conducted by the U.S. Forest Service demonstrate that 60-to-95-foot wide riparian buffers offer real advantages in the removal of harmful nutrients and sediment from storm water before it enters the stream. These same riparian buffers can increase the food supply and create interconnected natural systems of movement for local wildlife. Riparian buffers are areas adjoining streams where naturally successive vegetation is provided and protected. More information about this subject can be found on pages 25-28, and a model ordinance is contained on page 211 of this Chapter. ***Local officials should adopt Riparian Buffer Overlay regulations and apply them throughout the Region, particularly within its special protection watersheds.***

However, the Conservation area will be home to many of the Region's residents. More than half of the Region is proposed within this area. In addition to farming, single-family detached dwellings should be the principal form of "development" here. Farming uses should be afforded the same opportunities and limitations that are presented within the Agricultural categgory. ***Flexible design standards should be used to enable efficient lotting of new homes amid prime farmlands and natural features. Because no public utilities are planned to extend into this area, new homes should be required to provide for two on-lot sewage disposal systems (primary and back-up) prior to issuance of a building permit. In addition some municipalities have begun to require proof of an adequate domestic well prior to preliminary plan approval or issuance of a building permit.***

Next, like in the Agricultural area the use of accessory businesses should be permitted within the Conservation area to offer close-to-home employment and enhance local rural-based tourism. Home, rural and farm occupations should be allowed but scrutinized to ensure that impacts do not threaten residential compatibility or environmental degradation. Also like in the Agricultural area the use of on-lot sewers (OLDs) requires the protection of an alternate disposal system site and the regular maintenance of all OLDs.

Flag Lot with Joint-Use Driveway Design



Finally, past zoning policies have enabled the development of many scattered rural homes within the area. Most of these homes are not proposed for service by public utilities and like in the Agricultural area, ***should be specifically permitted by right within the Conservation area.*** This avoids their classification as nonconforming uses and will enable residents to make logical adjustments to these lots/homes without the need to gain approval from a local zoning hearing board for variances or expansions to nonconforming uses.

In summary, it is recommended that a new Conservation category be applied within the Region with the following components:

1. ***A deliberately worded purpose statement that cites the valid public purpose to protect and preserve important natural features in compliance with Section 604.(1) of the Municipalities Planning Code;***
2. ***A "hands-off" and "by-right" regulatory approach to farms conducting normal farming operations;***
3. ***Severely restricted development potential (say 1 lot for every 5-10 acres of lot area) or with slightly higher densities if conservation-design neighborhoods are proposed;***
4. ***Flexible lot design standards that enable new homes to tuck into the "nooks and crannies" of the rugged terrain;***
5. ***Judicious use of flag lots and shared driveways to facilitate efficient lotting and access;***
6. ***Required environmental impact report that details important natural conditions on a site and presents a strategy for their protection;***

7. ***Regulations governing the conduct of forestry operations in all areas of the Region;***
8. ***Regulations governing the use of riparian buffers throughout the Region;***
9. ***Alternate OLDs protection and maintenance and the possible use of conservation design with community systems;***
10. ***Liberal accessory use business regulations that specifically include home, rural and farm occupations, provided that these uses have little impact and that adequate provision is made for the safe disposal of wastes;***
11. ***Separate provisions of concentrated animal feeding operations (CAFOs) that ensure proper siting, operation and disposal of wastes;***
12. ***Siting standards for future dwelling units proposed that protect sunlight easements/equipment turning radii onto adjoining farms and locate homes so as to minimize land use conflict;***
13. ***Language that specifically authorizes existing homes as permitted uses; and,***
14. ***An Agricultural Nuisance Disclaimer that informs prospective residents of potential impacts associated with normal farming practices that are protected under the PA Right to Farm Law.***

Model Regulations for Forestry Uses

1. In accordance with State law, forestry uses are permitted by right in every zone, subject to the following standards:

2. **Logging Plan Requirements** - Every landowner on whose land timber harvesting is to occur shall obtain a zoning permit, as required by this Ordinance. In addition to the zoning permit requirements listed elsewhere in this Ordinance, the applicant shall prepare and submit a written logging plan in the form specified below. No timber harvesting shall occur until a zoning permit has been issued. The provisions of the permit shall be followed throughout the operation. The logging plan shall be available at the harvest site at all times during the operation, and shall be provided to the Zoning Officer upon request. The landowner and the forestry operator shall be jointly and severally responsible for complying with the terms of the logging plan and the zoning permit.
    1. **Minimum Requirements** - As a minimum, the logging plan shall include the following:
        A. Design, construction, maintenance and retirement of the access system, including haul roads, skid roads, skid trails, and landings.
        B. Design, construction and maintenance of water control measures and structures, such as culverts, broad-based dips, filter strips, and water bars.
        C. Design, construction and maintenance of stream and wetland crossings.
        D. The general location of the proposed operation in relation to municipal and State highways, including any accesses to those highways.
    2. **Map** - Each logging plan shall include a sketch map or drawing containing the following information:
        A. Site location and boundaries, including both the boundaries of the property on which the timber harvest will take place, and the boundaries of the proposed harvest area within that property.
        B. Significant topographic features related to potential environmental problems.
        C. Location of all earth disturbance activities, such as roads, landings and water control measures and structures.
        D. Location of all crossings of waters of the Commonwealth.
        E. The general location of the proposed operation to municipal and State highways, including any accesses to those highways.
    3. **Compliance With State Law** - The logging plan shall address and comply with the requirements of all applicable State regulations, including, but not limited to, the following:
        A. Erosion and sedimentation control regulations contained in Title 25 Pennsylvania Code, Chapter 102, promulgated pursuant to The Clean Streams Law (35 P.S. §691.1. et seq.).
        B. Stream crossing and wetlands protection regulations contained in Title 25 Pennsylvania Code, Chapter 105, promulgated pursuant to the Dam Safety and Encroachments Act (32 P.S. §693.1 et seq.).
    4. **Relationships of State Laws, Regulations and Permits to the Logging Plan** - Any permits required by State laws and regulations shall be attached to and become part of the logging plan. An erosion and sedimentation pollution control plan that satisfies the requirements of Title 25 Pennsylvania Code, Chapter 102, shall also satisfy the requirements for the logging plan and associated map specified in Sections 2.1. and 2.2., provided that all information required by these sections is included or attached.

3. **Required Forest Practices** - The following requirements shall apply to all timber harvesting operations:
    1. Felling or skidding on, or across, any public road is prohibited without the express written consent of the Municipality, or the Pennsylvania Department of Transportation, whichever is responsible for maintenance of the thoroughfare.
    2. No tree tops or slash shall be left within twenty-five (25) feet of any public road, or private roadway providing access to adjoining residential property.
    3. All tree tops and slash between twenty-five (25) and fifty (50) feet from a public roadway, or private roadway providing access to adjoining residential property, or within fifty (50) feet of adjoining residential property, shall be lopped to a maximum height of four (4) feet above the ground.
    4. No tree tops or slash shall be left on, or across, the boundary of any property adjoining the operation without the consent of the owner thereof.
    5. Litter resulting from a timber harvesting operation shall be removed from the site before it is vacated by the forestry operator.

4. **Responsibility for Road Maintenance and Repair; Road Bonding** – Pursuant to Title 75 of the Pennsylvania Consolidated Statutes, Chapter 49; and Title 67 Pennsylvania Code, Chapter 189, the landowner and the forestry operator shall be responsible for repairing any damage to Municipality roads caused by traffic associated with the timber harvesting operation, to the extent the damage is in excess of that caused by normal traffic, and shall be required to furnish a bond to guarantee the repair of such potential damages, as calculated by the Municipality Engineer.

Model Regulations for Riparian Buffers

As required within this Ordinance, and as guidance to any other landowner that voluntarily proposes, streamside buffers shall be provided in accordance with the following standards:

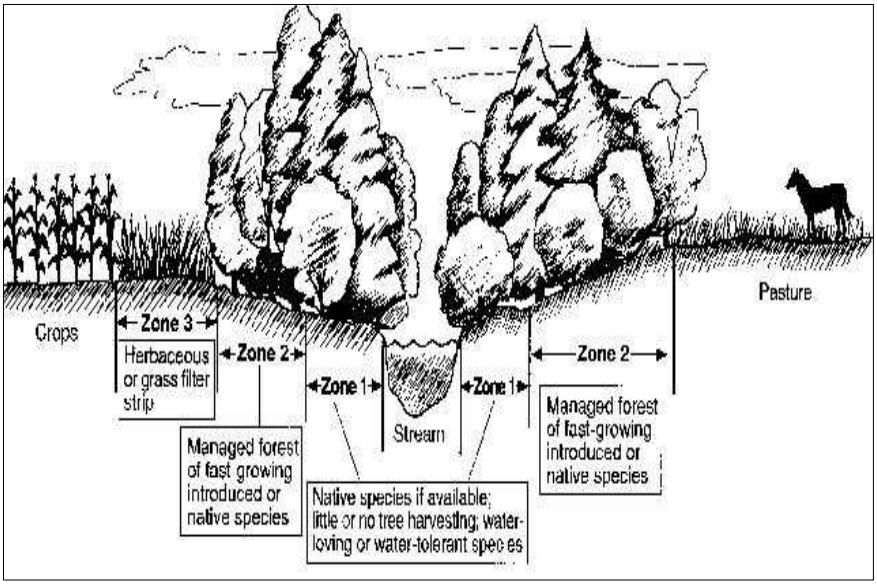
Buffer delineation – The applicant must submit a scaled site plan that clearly depicts the streamside buffer comprised of the following three separate Zones:

Zone 1 – The landward area located between the streambank edge under typical flow conditions and the largest combined width of all of the following:

- fifteen (15) feet as measured directly perpendicular from the streambank edge;
- the 100 year floodplain;
- any adjoining identified wetlands; and/or,
- any adjoining area characterized by slopes exceeding twenty-five percent (25%).

Zone 2 – The area beginning at the inland edge of the above-described Zone 1 and extending at least sixty (60) feet inland therefrom; and,

Zone 3 - The area beginning at the inland edge of the above-described Zone 2 and extending at least fifteen (15) feet inland therefrom. Where a pasture is proposed just beyond the above-described Zone 2, no Zone 3 is required;



Buffer plantings – Each of the respective Zones of the streamside buffer shall include vegetation that already exists or will be planted and maintained by the applicant that satisfies the following design objectives. The applicant shall submit expert evidence that the existing and/or proposed vegetation satisfies such objectives:

Zone 1 – This Zone must include mature canopy trees and a ground cover of warm season grasses. New tree plantings should be selected, arranged and managed to accelerate canopy growth, and offer native species habitat and food supply. New grass plantings should be selected and managed to filter-out pollutants and offer habitat. All vegetation within this Zone must thrive in wet conditions;

Zone 2 - This Zone must include mature canopy trees generally three rows deep and a natural undercover. New tree plantings should be selected that are rapid growing so as to intercept passing nutrients. Such trees should also be arranged and managed to accelerate canopy growth, and offer native species habitat and food supply. Successive undercover plants should also be allowed to "evolve" with the canopy of this Zone;

Zone 3 – This Zone should be planted with warm season grasses that are allowed to mature naturally without mowing. The tall grasses ensure that overland storm water flows do not "channel" into Zone 2. New grass plantings should be selected and managed to enable controlled grazing or haying so long as the grasses are not reduced to a point where they are no longer able to effectively disperse the surface water flows.

Buffer use and maintenance – Streamside buffers must be generally undisturbed. Mature trees and long grasses absorb more nutrients than do manicured plants. Similarly the more extensive root systems retain passing sediments. These characteristics reduce pollution and yield abundant food and habitat for wildlife. The temptation to "over-maintain" the streamside must be overcome. The following lists required maintenance activities for each Zone and the applicant must present a working plan that demonstrates compliance with such activities and practices:

Zone 1 – This Zone compels requires little maintenance. As trees mature, die and decay it is important that such natural debris be allowed to decompose within the stream. This will provide important food and habitat for beneficial microorganisms, fish and amphibious animals. Streamside grasses should similarly be allowed to seasonally flourish and recede. Man-made activities should be very limited and confined to perpendicular passages from Zone 2. Intensive-used locations should be fitted with raised walkways and reinforced embankments. Streamside cleanup of junk and manmade debris is permitted. No animal watering and crossing locations are permitted.

Zone 2 – This Zone requires the most attention but not for some time after initial planting. Here the objective is to develop a stable and broad canopy of tree cover. The trees within Zone 2 are fast-growing and therefore consume many nutrients. The regular pruning and trimming of these trees will increase their nutrient consumption, but should not jeopardize the important overhead canopy of shade. The natural undercover should be undisturbed except for periodic litter cleanup. Pedestrian paths can weave through Zone 2 but should be provided with raised walkways to prevent compacted soils and root damage.

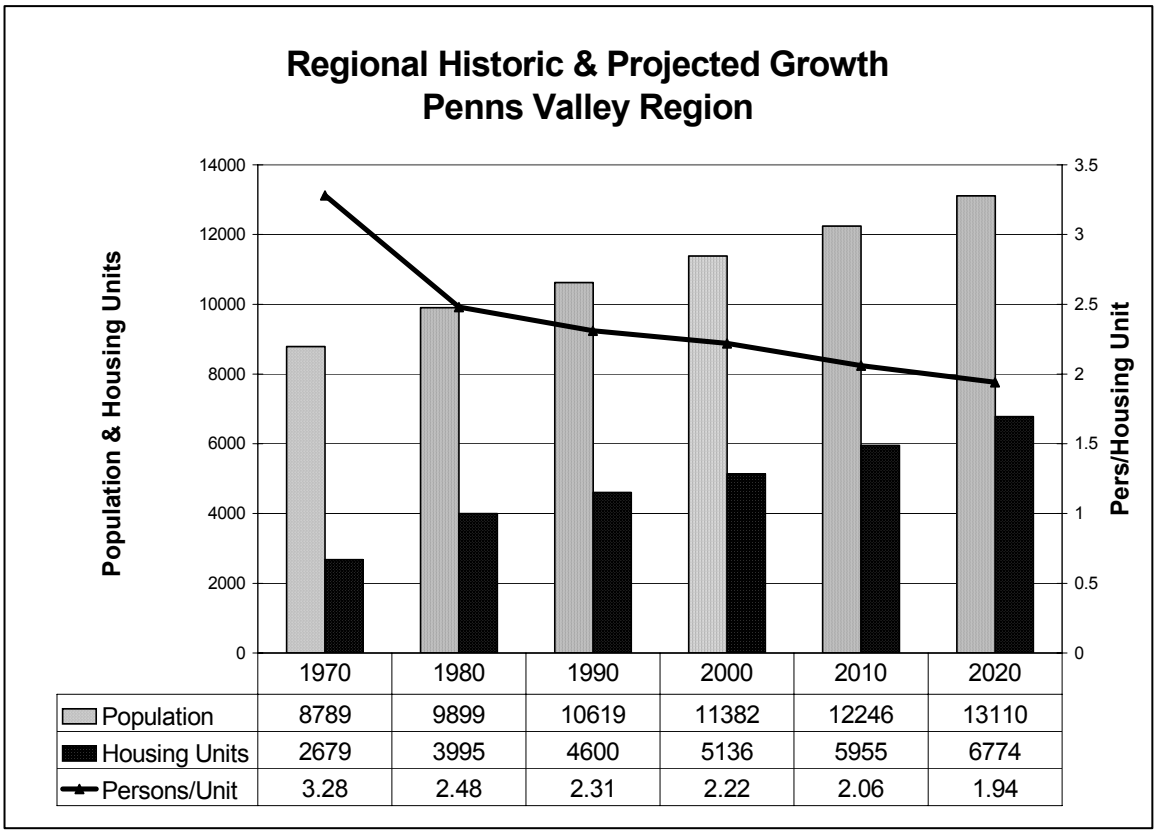
Zone 3 – This Zone also requires little maintenance. Long summer grasses should be allowed to flourish and recede with the seasons. Grazing and haying is permitted so long as the residual grass length is sufficient to disperse overland storm water flows into Zone 2 and avoid channelization.

C. RESIDENTIAL (LDR, VR, HDR, MHP & MU)

As described in Chapter VIII (Existing Land Use) of this Plan, the Region contains a wide variety of residential forms. Considerable rural housing lies in outlying areas on large lots with on-lot utilities in Agricultural and Conservation areas. Most of these are scattered along the Region's roads. These rural areas are **not** part of this discussion but are covered by their respective previous land use categories (Agriculture or Conservation) depending upon their location.

Instead this Section describes the planned neighborhoods that are, with the exception of within Haines Township, largely concentrated in and around the Region's two Boroughs and several villages. These neighborhoods are to receive the majority of the Region's planned residential growth and are, or will be, fitted with public sewer and public water as well as other public services. Local officials should encourage residential property owners to apply minimal amounts of herbicides and fertilizers to further reduce nutrient levels and other chemicals that could contaminate water resources as it relates to the Chesapeake Bay nutrient and sediment reduction goals.

Chapter IV (Demographics) of this Plan analyzed population and housing trends within the Region by municipality and for the Region as a whole. Since the Region has undertaken this Plan in a cooperative manner and has established the goal to allocate growth on a regional basis, the following graphs past and projected growth across the entire Region. The net projected population and housing growth is summarized below:



	1970	1980	1990	2000	2010	2020
Population	8789	9899	10619	11382	12246	13110
Housing Units	2679	3995	4600	5136	5955	6774
Persons/Unit	3.28	2.48	2.31	2.22	2.06	1.94

Projected Net Changes Per Decade		
Year	**2000 to 2010**	**2000 to 2020**
Population	864	1728
Housing	819	1638
Persons/Unit	-0.16	-0.28

The following table lists the various residential designations depicted on the Future Land Use Plan along with measurements of land area and potential developments based upon permitted densities:

Planned Residential Growth[2]				
Land Use Category	**Planned Acreage**	**Area (65%) devoted to development features[1]**	**Base Density Units/Acre**	**Total Potential Planned Units**
RR	1684	1095	1	1095
LDR	309	201	3	603
VR	258	168	4	672
HDR	75	49	6	294
MHP	0	0	6	0
Region	2326	1512	1-6	2662

[1] These figures reduce the area for development to reflect:

- the considerable areas of significant development constraint that exist throughout the Region;
- the features within developments that cannot be devoted to actual residential use (e.g. roads, utility easements, parks and etc.); and,
- the "Right-to-Travel" doctrine which requires that municipalities provide for some choice in personal mobility and residency.

[2] Pipeline developments within the Region are presumed to contribute to development potentials reflected in this Table when they occur within one of the planned residential categories; however, many of the pipeline projects occur within the rural landscape.

As can be seen the total number of potential housing units represents more than 162 percent of the projected residential growth (1638 units) within the Region through the year 2020. Therefore, local officials can resist claims that the Plan does not provide for a fair-share of residential growth within the Region.

Chapter IV (Demographics) also analyzed the mixture of various housing types to ensure that all forms of housing are provided. It determined that in ***order to avoid claims of exclusionary zoning practices and to reflect contemporary housing styles, the Region needs to specifically plan to rely less upon single-family detached units in the future as presented in the following table:***

Target Projected New Housing Units by Structural Type				
Year	**Total Housing Units**	**Target single-family detached**	**Target attached, duplex & multi-family**	**Mobile Homes**
2000	5136	4026 (78.4%)	405 (7.9%)	696 (13.6%)
2000-2010	+819 = 5955	+ 143 = 4169 (70%)	+687 = 1092 (20%)	+0=696 (11.7%)
2000-2020	+1638 = 6774	+716 = 4742 (70%)	+ 951 = 1356 (20%)	+0=696 (10.3%)

From the above table it can be determined that the Region should provide for the opportunity to develop at least 951 new duplex, attached and multi-family housing units through the year 2020. These figures meet the target mixture of unit types and can help the Region avoid claims of exclusionary zoning based upon a lack of housing variety. Both the Village Residential and High-Density Residential categories offer the opportunity for duplex, attached and multi-family housing units under the recommendations of this Plan.

As allocated, these areas provide the opportunity for 964 total units, or 101 percent of the target projection of 951. In addition, beyond the Village and High Density Residential categories, the Plan recommends that upper floor space within the Boroughs' Central Business areas and all areas within the Mixed Use areas be available for conversion apartment use. This adds significant opportunity for multi-family dwelling units that further exceed the Region's targeted projection for such housing.

Therefore, local officials can act confidently that they have met their burdens to:

- ***offer sufficient areas for residential development according to projected Regional growth; and,***
- ***provide for a suitable variety of housing unit types and densities for all income levels.***

Next specific recommendations and strategies will be presented for each of the planned residential categories along with typical and/or suggested design standards; it is important to note that local officials have wide latitude in determining proper design standards for a particular zone and those offered within this Plan represent merely a starting point for such consideration:

Rural Residential (RR) - During the preparation of this Regional Plan, Haines Township was completing work on an independent update of its comprehensive plan. As part of that process, the Township designated some 1684 acres for rural residential land uses; these areas are depicted on the Future Land Use Map and incorporated into this Plan. Here, like in the previously-described Agricultural and Conservation areas, low-density residential uses would be accommodated principally relying upon on-lot utilities. However, the Township intends to permit the use of conservation design subdivisions that employ low-tech community-based utility systems. Here greater density can accommodate the few homes on less acreage and avoid disruption of adjoining natural features. Conservation design neighborhoods should incorporate design standards to use the "required" open space to protect sensitive natural features and provide for habitat linkages.

Because of the its inherent development potential, this zone should permit normal farming operations by right, but apply rigorous review procedures upon more intensive livestock operations. The mixing of intensive livestock operations with their associated odors are usually unwelcome neighbors amid large lot rural neighborhoods. Haines Township might also wish to consider banning intensive livestock operations within this Rural Residential area for this reason and focus them upon lands within its Agricultural area.

Similarly, secondary businesses that can usually be conducted within expansive agricultural settings may prove too intensive when large-lot neighborhoods can rise-up next door. Haines Township may wish to limit the scale and types of farm occupations within the Rural Residential area to ones that can reasonably function surrounded by acre-lot houses.

Low Density Residential (LDR) - Within the Region, a few planned LDR areas are located around the existing "suburban-style" neighborhoods that have evolved over the last few decades. While several of these merely reflect existing subdivisions, a few others allow for future growth. It should be understood that this category is not intended to provide for the Region's majority of planned residential uses because of its land-consumptive character. The following tabulates potential areas for LDR developments within each municipality:

Country Club Park in Potter Township.

Areas Planned for Low-Density Residential Development

Municipality	Centre Hall	Gregg	Haines	Miles	Millheim	Penn	Potter	Region
Acres	0	139	54	20	79	0	17	309
Potential Units	0	271	105	39	154	0	33	603

Gregg Township contains the largest of these areas just west of the Village of Spring Mills along the south side of PA Route 45. Here, several suburban-style developments have taken hold which compels similar treatment for a few adjoining properties. While these areas are currently beyond the reach of public utilities originating within Spring Mills, Gregg Township has expressed interest in new "low-tech" community sewers that could be applied here and could facilitate the use of conservation design.

Both Millheim Borough's and Potter Township's planned LDR areas correlate with similar nearby developments in limited areas. The Village of Rebersburg also has a strip of suburban-style homes on the west side of town and another few properties located on its south side where the Township's planned growth will occur despite an absence of public sewer service. The LDR is the only category that contemplates densities that can be achieved without the use of both public sewer and water. Therefore, densities and design standards must be adjusted according to the availability of public utilities. The table on the following page presents suitable design standards based upon the use of

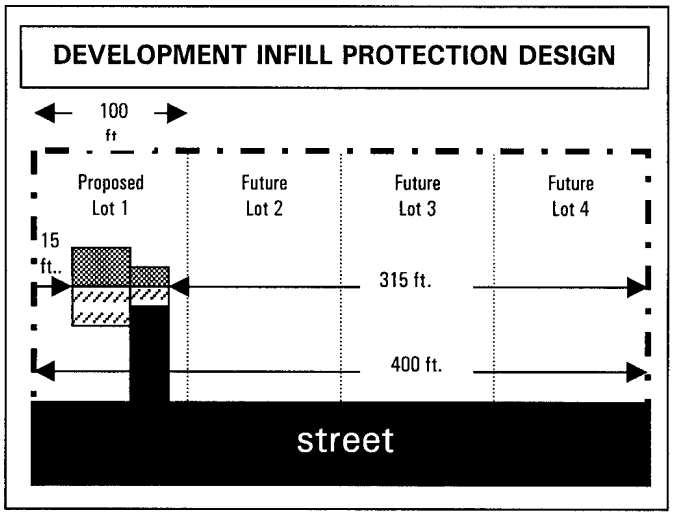
public utilities.

It is important to recognize that proposed dwellings that make use of on-lot sewage disposal systems (OLDs) should have a minimum lot size of one acre so that an alternate disposal system location can be installed and preserved for potential future use, should the initial system fail. Such OLDs must also be regularly maintained as described more fully on pages 201-202 of this Chapter.

These neighborhoods would also be logical locations for conservation design subdivisions based upon the use of these community utility systems. Then required open spaces could focus upon the preservation of existing natural features or the provision of neighborhood parkland

Suitable Design Standards for the LDR Category

Utilized Public Utilities	Lot Area	Lot Width at Building Setback Line & (Frontage)	Maximum Lot Coverage	Minimum Yard Setbacks				Maximum Permitted Height
				Front	Sides		Rear	
					One	(Both)		
None	1-2 acres	120-150 ft.	10-20%	35 ft.	25 ft.	(50 ft.)	35 ft.	35 ft.
Public Water	1-2 acres	120-150 ft.	10-25%	35 ft.	20 ft.	(40 ft.)	35 ft.	35 ft.
Public Sewer	½ to 1 acre	100-120 ft.	20-30%	35 ft.	15 ft.	(30 ft.)	35 ft.	35 ft.
Both Public Sewer & Water	10,000 - 20,000 sq. ft.	80-100 ft.	30-40%	35 ft.	10 ft.	(20 ft.)	35 ft.	35 ft.



Should an area within the LDR category be developed prior to the known future availability of public utilities, the municipalities could require the use of utility-infill design. Under these circumstances, minimum lot widths and one of the required side yard setbacks are kept deliberately wide to facilitate the addition of new lots once public utilities are extended to the site. The adjoining diagram presents once such set of standards and how they would apply. This design could also be accompanied by a capped utility line requiring the developer to install such utility lines during the construction of the development awaiting eventual activation when service becomes available.

Existing developments within LDR area have no sidewalks, street lights or street-side shade trees, but local officials should consider requiring them when such neighborhoods

could link with other nearby uses and neighborhoods within the Boroughs and Villages.

Village Residential (VR) – Much of the Region's housing diversity is anchored within the older neighborhoods of its Boroughs and Villages. Here, the traditional residential pattern of development must be reflected to continue and grow. Side-by-side duplexes and conversion apartments are common. By design, most of these neighborhoods feature long and narrow lots with tightly-knit houses built close to the sidewalks and on-street/alley parking. There exists some diversity in density and lot dimensions throughout the Region; however, the grid street/block pattern generally creates uniform lot depths from one neighborhood to the next. Some garages upon narrow alleys also exist.

Much of the Region's planned residential growth is targeted within infill areas of these neighborhoods and around the "edges-of-town" as is one of the goals established for this Plan. The following tabulates the developable acreages planned within the VR areas for each municipality.

Coburn's streetscape

Traditional housing streetscape along Penn Street in Millheim Borough.

Areas Planned for Village Residential Development								
Municipality	Centre Hall	Gregg	Haines	Miles	Millheim	Penn	Potter	Region
Acres	63	6	24	13	33	13	106	244
Potential Units	164	16	62	34	86	33	276	669

These areas generally have access to public utilities and sidewalks are often nearby, in some cases limited to one side of the road. Local officials should seek to retrofit areas lacking in sidewalks over time as new neighborhoods are connected and streetscapes are repaired.

Based upon the Region's lack of land use regulatory sophistication and experience it is recommended that regulations for such developments be simple and practical. Furthermore, review processes should be kept to a minimum so that limited municipal manpower is not overburdened. The following lists suggested minimum design standards based upon the prevailing designs of existing developments within these areas.

TYPICAL DESIGN STANDARDS FOR DETACHED DWELLINGS IN THE VR CATEGORY						
Block Dimensions WidthxDepth	**Lot Size (sq. ft.)**	**Lot Width**	**Front setback***	**Side setbacks each**	**Rear setback**	**Parking Location**
Centre Hall Borough						
630 x 320'	15,000	100 ft.	40 ft.	10 ft.	35+ ft.	On street & front driveways
Gregg Township (Village of Spring Mills)						
230 x 170'	13,000	65 ft.	10 ft.	10 ft.	35+ ft.	Side & rear; no alleys
Haines Township (Village of Aaronsburg)						
250 x 220'	12,000	60 ft.	5 ft.	10 ft.	35+ ft.	Side & rear, alleys w/garages
Haines Township (Village of Woodward)						
250 x 180'	10,000	60 ft.	10 ft	5 ft.	35+ ft.	Side & rear
Miles Township (Village of Madisonburg)						
280 x 190	11,000	60 ft.	5 ft.	5 ft.	35+ ft.	Side & rear
Miles Township (Village of Rebersburg)						
270 x 190	11,000	60 ft.	5 ft.	5 ft.	35+ ft.	Side & rear; alleys w/garages
Millheim Borough						
290 x 150	11,000	75	5 ft.	5 ft.	35+ ft.	Side & rear; alleys w/garages
Penn Township (Village of Coburn)						
270 x 170	10,000	60 ft.	5 ft.	5 ft.	35+ ft.	On street & alleys
Potter Township						
See standards for Centre Hall Borough						
* Front yard setbacks measured from the edge of the cartway to the closest point of the front façade.						

To accommodate logical change in these neighborhoods, zoning policies must align with the preceding design standards. This will enable residents to undertake projects that are consistent and compatible with nearby uses, without the need for variance and/or special exception applications and hearings. This will ease municipal workload and increase public acceptance of municipal practices and policies.

Accordingly, these standards represent common denominators that are at a higher density with smaller setbacks imposed than those found on some of the properties within these neighborhoods. ***Hence the municipalities should include language within the VR category that specifically varies required setbacks (particularly in front yards) to reflect those found on the same block.*** This will ensure compatibility on a block-by-block basis. ***Building height is generally between 2 and 3 stories; this too should be reflected in design standrads.***

Another issue that is commonly problematic within densely-developed neighborhoods relates to accessory uses. Accessory uses are structures or activities that are incidental to the primary use of a property. For example, a residential accessory structure could include a detached garage, swimming pool or satellite dish antenna. Similarly, a residential accessory activity could be a yard sale, the storage of a boat or trailer, or the repair of personal automobiles.

The impacts of accessory uses are more easily absorbed in rural or suburban areas where lot-to-lot separation is greater. Within the Boroughs and Villages, however, such separation is impossible and neighbors are more easily affected by another's activities and actions. ***It is recommended that applicable residential accessory land use regulations be incorporated within the VR category; however, not to the point that they violate recently adopted amendments to the Municipalities Planning Code***

which authorizes widespread use of "home-based businesses."

The VR areas' central locations cause them to be linked with the Central Business, Village Commercial and Mixed Use areas of the Boroughs and Villages. Consequently, these neighborhoods already include other nonresidential uses that contribute to their central and nodal roles within the Region and its small-town character. ***These uses should be specifically accommodated. Civic uses, churches, schools, parks and playgrounds and limited day care facilities should all be permitted as they provide important services within these established neighborhoods. Moreover, limited businesses that present little impacts to surrounding properties should also be accommodated. Small retail shops and services, offices, bed and breakfasts and similar uses should be permitted but only if they can make adaptive use of the neighborhood's residential structures. Demolition of residential buildings to accommodate new commercial buildings should be prohibited. Signage associated with these other use should reflect a residential and pedestrian orientation.***

While most of the dwelling units within the VR category are single family detached units; this area should also reflect an ability to develop a mixture of housing units. The following presents design standards for such housing unit types based upon the characteristics observed in all of the VR areas:

DESIGN STANDARDS FOR "OTHER" DWELLINGS IN THE VR CATEGORIES						
Unit Type	**Lot Size (sq. ft.)**	**Lot Width**	**Front setback***	**Side setbacks**	**Rear setback**	**Parking Location**
Duplex	5,000-6000	25-30 ft.	5 ft.	10 ft. one side	35+ ft.	As per the prevailing location upon the block.
Townhouse	2,400 - 3,200	20-30 ft.	5 ft.	15 ft. end units	35+ ft.	
Multi-Family	1 to 2 ac.	200 ft.	10 ft	30 ft. each	35+ ft.	

Existing neighborhoods within the VR area have conversion apartments interspersed with detached dwellings. ***Conversion apartments provide opportunities for scattered site affordable housing that can be used as starter units for young families or empty-nest units for the elderly. These housing opportunities should be incorporated into the VR category; the following presents "typical" criteria imposed upon these uses:***

Section __ Conversion Apartments

1. Within the (VR) Residential Zone, an existing single family detached dwelling with at least _____ square feet of habitable floor area that existed on the effective date of this ordinance may be converted into one (1) additional dwelling unit, subject to the following criteria:
2. The applicant shall furnish evidence that an approved system of water supply and sewage disposal will be utilized;
3. No modifications to the exterior of the building (except fire escapes) that would alter its residential character shall be permitted unless authorized by the Historic Architecture Review Board;
4. Each dwelling unit/use shall have at least 400 square feet of habitable floor area and a direct means of escape to ground level; and,
5. The applicant must provide for one (1) off-street parking space assigned to the proposed unit.

High Density Residential (HDR) – The Penns Valley Region is planned to experience considerable growth of higher-density forms of housing. In the year 2000, the US Census reported that the Region contained only 405 dwelling units that were not detached dwellings or just under eight percent of the Region's total housing stock. In order to reflect national housing trends, to reduce suburban sprawl and to offer a variety of housing unit types and

densities, the Region has developed target projections that will add 951 new duplex, attached and multi-family units by the year 2020 bringing the proportion of such units to 20 percent of the total housing stock. While much of this can occur within the above-described VR area, the HDR area locates some 75 acres which could accommodate 294 new units as follows:

Areas Planned for High Density Residential Development								
Municipality	Centre Hall	Gregg	Haines	Miles	Millheim	Penn	Potter	Region
Acres	0	34	0	13	14	0	14	75
Potential Units	0	133	0	51	55	0	55	294

Converted hotel in "downtown" Centre Hall Borough

Areas planned in this category largely acknowledge existing uses and the presence of public utilities. HDR areas are also placed as buffer zones to separate non-residential uses and nearby neighborhoods. The locations of these areas have been deliberately scattered among the municipalities in accordance with the Plan's goal and to "spread" the traffic impact across several local traffic sheds. All areas are planned for public utility service and should be fitted with sidewalks and access to other nearby public facilities (eg. parks, churches, schools, post offices, etc.) The table on the following page presents one set of high-density residential design standards that could be applied to HDR areas.

The Meadows Psychiatric Center in Potter Township

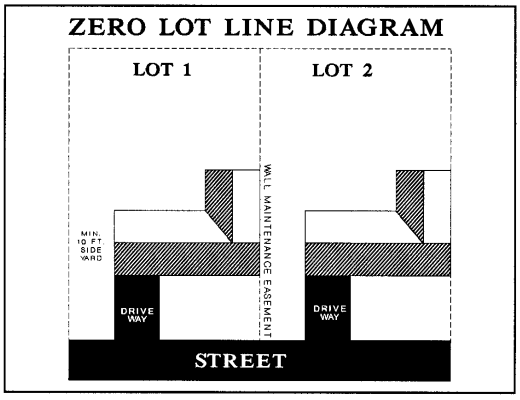
Another consideration with high-density housing relates to off-street parking. Generally, units with assigned off-street parking spaces yield higher values and likelihood for owner occupancy as opposed to rental occupancy. Consequently, municipalities have begun to offer design incentives for parking arrangements that foster these preferred arrangements. Local officials should carefully explore a range of parking schemes and shared driveways for the various housing unit types and determine if one or more schemes best fit the local demands and community development objectives.

Finally, this category should also regulate other specialized high-density residences such as assisted living, nursing, rest or retirement homes and campuses, and boarding houses. These uses often involve specific needs that compel special attention and review, either by special exception or conditional use.

SUGGESTED DESIGN STANDARDS FOR THE HDR CATEGORY

Use	Minimum Lot Area (sq ft.)	Maximum Permitted Height	Minimum Lot Width @ Setback/(Frontage)	Maximum Lot Coverage	Minimum Required Yards			
					Front	One Side	Both Sides	Rear
Detached Dwelling	6,000 - 10,000	35 ft.	60 - 90 ft. (50 ft.)	45-55%	25 ft.[1]	6 ft.[3]	12 ft.	15 ft.
Duplexes	3,500 -5,000 per unit	35 ft.	35 - 50 ft. per unit (40 ft. per unit)	55-65%	25 ft.	10 ft.	N/A	15 ft.
Townhouses[2]	1,800 – 2,400 per unit	35 ft.	18 - 24 ft. per unit (18 ft.) per unit	65-75%	25 ft.	15 ft.	(End Units)	20 ft.
Multiple-Family[3]	1- 2 acres	35 ft.	150-250 ft. (200 ft.)	55-65%	35 ft.	30 ft.	60 ft.	35 ft.

[1]Within a cluster development, single-family detached dwellings may employ a zero-lot-line design when the following conditions have been satisfied:



a. Minimum lot width shall be forty-five feet (45') and thirty-five feet (35') at the building setback and the lot frontage, respectively.
b. One side wall of the structure may be located no less than one inch (1") from one of the side lot lines when adjoining another zero-lot-line dwelling lot. The opposite side yard shall be at least ten feet (10') wide.
c. A perpetual six foot (6') wall-maintenance easement shall be provided on the lot adjacent to the zero-lot line, which shall be kept clear of structures and vegetation. This easement shall be shown on the plat and incorporated into each deed transferring title to the property. The wall shall be maintained in its original color and treatment, unless otherwise agreed to in writing by the two affected lot owners.
d. Roof overhangs may penetrate the easement on the adjacent lot a maximum of twenty-four inches (24"), but the roof shall be so designed that water runoff from the dwelling place on the lot line is limited to the easement area.
e. The wall of a dwelling located along the zero-lot-line shall have no openings (e.g., windows, doors, air conditioning units, vents, etc.), unless such openings are located at least eight feet (8') above grade, and have translucent panels.

[2]No townhouse building shall contain more than eight (8) units. For each townhouse building containing more than four (4) units, no more than sixty percent (60%) of such units shall have the same front yard setback; the minimum variation of setback shall be two feet (2'). In addition, no more than two (2) contiguous units shall have identical roof lines that generally parallel the ground along the same horizontal plane. All townhouse buildings shall be set back a minimum of fifteen feet (15') from any interior access drives, or parking facilities contained on commonly-held lands. All townhouse buildings shall be set back at least thirty feet (30') from any perimeter boundary of the development site. In those instances where several townhouse buildings are located on the same lot, the following footnote 3 shall apply.

[3]In those instances where several multiple-family dwelling buildings and/or townhouse buildings are located on the same lot, the following separation distances will be provided between each building:

a. Front to front, rear to rear, or front to rear, parallel buildings shall have at least fifty feet (50') between faces of the building. If the front or rear faces are obliquely aligned, the above distances may be decreased by as much as ten feet (10') at one end if increased by similar or greater distance at the other end.

b. A minimum yard space of thirty feet (30') is required between end walls of buildings. If the buildings are at right angles to each other, the distance between the corners of the end walls of the building may be reduced to a minimum of twenty feet (20').
c. A minimum yard space of thirty feet (30') is required between end walls and front or rear faces of buildings.
d. All multiple-family dwelling buildings shall be set back a minimum of fifteen feet (15') from any interior access drives or parking facilities contained on commonly-held lands.

Manufactured Home Parks (MHP) - The Region's ratio of manufactured homes (13.6%) is almost double that of the Countywide average (7.5%). In Potter Township more than 1 in 5 dwelling units is a manufactured home. For these reasons, the Region believes that it has already met its fair-share burden to provide for mobile homes within its several manufactured home parks. Therefore, future manufactured home park development will be encouraged as expansion around existing parks. It is important to understand that this restriction only applies to manufactured home parks as freestanding manufactured homes are protected under Federal law as single-family detached dwellings and can be placed anywhere "stick-built" homes can be.

Centre Hall Associates

Manufactured home parks have unique settings that do not mesh with regulations imposed upon their surroundings. Therefore, occupants of these parks must often apply to the Zoning Hearing Board to undertake minor expansions and adaptations of their homes. This imposes unnecessary bureaucracy and costs upon low-to-moderate income residents who can least afford the hearing and legal representation expenses. To overcome this problem it is recommended that a Manufactured Home Park category be applied to existing parks. This will enhance the compatibility within the other adjoining areas by eliminating manufactured home parks as a potential use within these unsuspecting neighborhoods. The following presents design standards for manufactured home parks as observed at Centre Hall Associates, (the Region's largest mobile home park) during the field inspection of the Existing Land Use Inventory (Chapter VII):

Centre Hall Associates, the Region's largest manufactured home park located along PA Route 45 in Potter Township

DESIGN CHARACTERISTICS OF MANUFACTURED HOME PARKS						
Rd. width	Lot Width	Front Setback	Side Setback	Rear Setback	Parking Location	Other Setbacks
16 ft.	40 ft.	10 ft.	10 ft.	5 ft.	Parallel along street & side yard pads 2-cars deep	Sheds setback 5 ft.

Mixed Use (MU) - Much of the perceived character of the Penns Valley Region is gained along three of its principal highways PA Routes 45, 144 and 192. These historic highways linked the outlying agricultural areas of Penns and Brush Valleys with larger markets. Accordingly, small towns emerged at key locations along these routes. In these small towns emerged nodes of commerce that have over time become the central business districts of Centre Hall and Millheim Boroughs and the commercial crossroads in Aaronsburg, Madisonburg and Rebersburg. But just beyond these commercial cores were homes that lined both sides of the road that benefited from the convenient access.

As society grew and became more mobile, demand for even more commercial services increased in the towns and villages. However, the tightly knit neighborhoods that encircled the central business areas left no room for commercial expansion, except within the existing homes along the highway. With even more growth and mobility came traffic congestion and the impacts of traffic streams along the highways. All of these factors combined to promote the conversion of the older homes into other uses, besides detached dwellings.

Rebersburg contains a variety of mixed uses along PA Route 192

Over time, many of these former homes have been converted into small retail, business and office uses, and/or conversion apartment units. In addition, some smaller sites that were once vacant, have now been occupied by small commercial buildings. This conversion has occurred because of the high volume of traffic that uses the highways and provides a captive market to small businesses.

Recognizing these factors, the Plan continues to recommend these mixed uses, as they exist. However, it is vital that existing single-family residence clusters be preserved in their midst. To enhance compatibility within this category, it is recommended that the MU area permit residences by right under the same terms as the VR category. However, this area should also allow permit the adaptation of existing buildings for non-residential use.

Specifically, limited businesses, services, offices and conversion apartments should be permitted by special exception or conditional use. These uses should be subject to specifically established and strictly applied design standards for lot coverage, landscaping/screening, signage, outdoor storage and pedestrian access. Also, this area should provide a deliberate disincentive for the razing of existing buildings to accommodate more contemporary commercial building styles (eg. 1-story block buildings with flat roofs).

On the other hand, setbacks, parking, loading and driveway access conditions should be subject to site plan review, in the hopes that several adjoining properties can become integrated. Such integration will help to reduce traffic congestion, while allowing for reasonable land use along these corridors. The improvement of existing mixed-use neighborhoods does not occur rapidly or without controversy. Nonetheless, if the Region is committed to preserving its small-town qualities, it will be necessary to halt and reverse the trend towards strip commercial development along these important corridors. This effort will also produce improved traffic flow along this route by reducing conflicting traffic movements.

Finally, depending upon the commitment to preserve these respective areas distinctive character, the municipalities could establish one or several local historical districts to preserve significant historical resources. This would require the creation of a Historical Architecture Review Board (HARB) and would be subject to the rules described in Commonwealth of Pennsylvania Act 167 (1961), as amended. This program could help to significantly protect the "small-town" charm exhibited in the older structures within the Region's Boroughs and Villages. Millheim Borough has already implemented a local Historic District under this act.

D. COMMERCIAL (VC, CBD, HC & CR)

Within the Penns Valley Region there are four distinct patterns of planned commerce. The first, **Village Commercial**, aims to localize convenience goods and services in the Villages of Rebersburg, Spring Mills and Woodward. The **Central Business Districts** within Centre Hall and Millheim Boroughs are intended to provide vibrant downtown destinations featuring a variety of shops, restaurants, offices and civic uses. **Highway Commercial**, provides for freestanding strips of commerce that line the Region's historic travel routes. The following details recommendations for each of these separate areas:

Village Commercial (VC) - Within the Villages of Rebersburg and Spring Mills are proposed Village Commercial. Within Spring Mills, this designation reflects very limited nodes of existing commerce that serve the local vicinity. Today these areas contain a small country grocer, garage, offices, post office, historic vacant storefronts and a restaurant/inn. Here only minor in-filling of adjoining sites is contemplated.

Local commerce in Woodward Vilage

In Rebersburg, the northwest corner of PA Route 192 and Broad Lane is planned for a 4-acre commercial site. This recommendation responds to Miles Township's desire to share in the Region's commercial growth amid its largely rural landscape. This site can offer residents of the Brush Valley modern conveniences that have already occurred along PA Route 45 in the Penns Valley. It is hoped that a small-scale shopping center can be developed here with a variety of small scale retail stores, small service shops, offices, restaurants and taverns. Based upon calculations of developable area within these three VC locations about 4.9 acres could be developed for commercial use within this category.

Areas Planned for Village Commercial Development								
Location	Centre Hall	Spring Mills (Gregg)	Woodward (Haines)	Rebersburg (Miles)	Millheim	Penn	Potter	Region
Acres	0	1.0	0	3.7	0	0	0	4.9

Uses permitted here should reflect a local orientation and integrate within the setting without great adverse impact. Uses should remain small and emphasize providing local daily needs to nearby rural residents and local tourism. Convenience stores, restaurants and taverns, bed and breakfasts, offices, automobile filling stations with minor repair, card, book, magazine, newspaper, music, and video shops, barber and beauty salons, photographic, art and dance studios, tailors, laundromats and dry cleaning drop-off stations, flower shops, jewelry, watch and small appliance sales and various civic uses like churches, cemeteries and post offices are all appropriate.

Overall retail size per store should be limited so as not to exceed its local orientation, nor provide an incentive for the demolition of existing historic buildings in favor of more modern commercial building styles. The development of multi-shop arcades should be encouraged particularly within the adaptive reuse of existing historic buildings. Demolition of historic buildings should be discouraged. All commercial signs should also be limited to reflect their local orientation yet offer ready identification at this busy intersection.

Zoning design standards should promote shared use of access drives, and off-street parking and loading spaces. Outdoor storage should be prohibited in most cases and, if allowed, effectively screened from adjoining roads and residences.

<u>Central Business District (CBD)</u> – Centre Hall and Millheim Boroughs have the most cohesive and identifiable commercial cores within the Region. Within both Boroughs, local officials hope for a better future with more activity and reinvestment. This category will assemble a strategy to enable these "downtown" areas to serve as the Region's centers of retail, service, civic and leisure activities. For the most part these areas are built-out. However, the boundaries of this CBD include under-utilized parcels and residential properties that could be adapted for commercial use. ***To promote optimal use of these areas, the Boroughs should undertake a variety of actions and programs, many of which will require patient diligence:***

Millheim Borough CBD

First, the Boroughs should be selective in the uses allowed in downtown areas to be pedestrian-friendly and at a proper scale. This will allow for confident reinvestment as owners will be assured of a pleasant and intimate setting that is free of more intensive and objectionable uses. Zoning requirements for this area should incorporate several important features. ***The CBD should promote uses that are oriented toward pedestrian customers.*** This does not suggest that customers will suddenly stop visiting the area via

automobile, but that "potential" uses should be ones that can serve pedestrians equally well. Such uses would have the added benefit of not requiring the frequent delivery of merchandise via large tractor-trailers, in an area lacking adequate off-street loading space. Examples of suitable uses include:

> *card, book, magazine, newspaper, music, and video shops; specialty food stores; bakeries; delicatessens; wine shops; clothing boutiques; barber and beauty salons, sporting goods and musical instrument shops; drug, tobacco, hardware, and 5 and 10 cent stores; restaurants, taverns, ice cream parlors, and outdoor cafes; bed and breakfasts; photographic, art and dance studios; offices; photocopy and office supplies; computer and software sales; arcades and movie theaters; tailors; laundromats and dry cleaning drop-off stations; flower shops; jewelry, watch and small appliance sales and repair; corner grocery stores, including outdoor display, etc. In addition, various civic uses like churches, cemeteries and post offices are also appropriate.*

Overall retail size per store should be limited, so as not to exceed its local orientation, nor provide an incentive for the demolition of existing historic buildings in favor of more modern commercial building styles. The development of multi-shop arcades should be encouraged, but only through the adaptive reuse of existing buildings. Demolition should be discouraged, and all structural alterations should be scrutinized by a local Historic Architectural Review Board (HARB). The HARB should also apply suitable standards for other streetscape amenities, such as signs, canopies, benches, light poles, and so forth. As an alternative, store owners can donate or sell their façade easements to a local historic agency that would be responsible for its architectural style and maintenance. Under this approach, the façade can retain its historic character as ownership and uses change.

All commercial signs should be limited to reflect their pedestrian orientation. Within this category, the Boroughs should substantially relax off-street parking requirements for suitable uses, due to their pedestrian orientation and the proximity of on-street and public parking lots. Upper-story apartments should be permitted to offer a greater variety of affordable housing options, and make efficient use of floor space that is often unusable for commercial purposes.

Zoning requirements should prohibit the placement of off-street parking and/or loading within the front yard, in favor of sidewalk "build-to" lines with outdoor cafes and limited outdoor display bins. Other outdoor storage areas should be prohibited to enhance site-to-site compatibility.

To promote revitalization, local officials also need to advertise their willingness to work with local entrepreneurs to achieve the right type of development. Too often, would-be proprietors are afraid of the development review process and the local opposition that can emerge. Local officials should emphasize their willingness to cooperate and work through any specific difficulties that jeopardize reinvestment. This is not to say that they should approve every request, but the local business community should feel as though they have an ally in the review process when the right type of use is proposed. This will require an ongoing demonstration of this commitment. Over time, local entrepreneurs will come to trust the Borough officials and feel free to exercise their creativity and entrepreneurial spirit through reinvestment to the benefit of the community and Region.

Borough Council should challenge and energize the local business owners associations to oversee and nurture these areas through various programs and activities. This group should be vigilant in their advocation for these areas at all times, and keep the local officials' and public's attention squarely on its needs over the long haul. This should be accomplished as a short-term activity that will lead to an ongoing process of improvement.

Borough Councils should also seek to implement a program of institutionalized temporary local, School District and County tax relief for new entrepreneurs who decide to reinvest downtown. This will require commitments from these respective agencies and help new businesses survive their first difficult years.

Many commuters pass through Centre Hall and Millheim Boroughs on a daily basis. ***It is recommended that local businesses provide goods and services that target these daily commuters.*** Convenience goods and services and breakfast and supper-time menus can create new customers, and intercept others who may look for similar services along the highways that converge within the Boroughs. ***Also, regularly scheduled weeknight business hours (eg. Wednesday nights) or special events (Friday night bazaars or concerts) can enliven downtown as an activity center and distinctive destination.***

A view of "downtown Centre Hall Borough

Frequently a lack of convenient off-street parking is identified as a reason for the decline of "downtown" retail businesses. Limited off-street parking can adversely affect a downtown's ability to compete with outlying shopping areas. Furthermore, tourists will not enjoy a visit that is marred by an inability to conveniently park. Today, the on-street parking and Millheim's public parking lot appears to be sufficient to serve the existing businesses with their modest level of commercial activity. However, with increased success and activity in the downtown will come an increasing demand for services, including parking. Several options are noteworthy.

First, several civic uses are located within or adjoining the CBD. The parking lots (Millheim Fire Co. & Centre Hall Evangelical Lutheran Church) as well as nearby parkland parking can supplement "downtown" parking during periods of low use. ***Local officials should approach these civic uses to see if public parking access can be negotiated during periods of low usage. Then, if approved, modest signage should be posted at the street entrances to such parking along with time periods when public use is use authorized.***

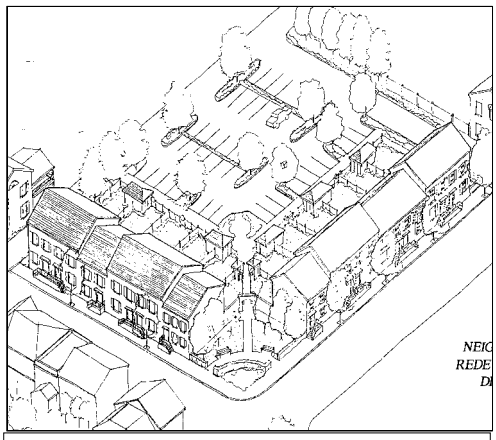
Second, it is noted that several under utilized parcels exist in close proximity to these downtown areas. First, in Centre Hall Borough is a series of 4 lots with just under ½ acre located at the northeast corner of Decatur and Miles Alleys owned by the Miller Motor Company; one of these already appears to be used to park school buses. These lots could be developed with about 50 parking spaces to supplement available on-street parking. Within Millheim Borough, a public parking lot already has been developed; however, adjoining properties appear to have undeveloped space for possible expansion. At such time as demand warrants, local officials should consider acquisition and improvement of these parcels with directional signs posted nearby.

If the preceding do not accomplish needed parking, then local officials should implement a Downtown Parking District for all of those properties within the downtown areas. As can be seen in the above aerial photograph, considerable open area exists between the principal buildings and the alleys in the rear yards. However, the narrow lot widths confound any attempts to incorporate additional off-street parking with access lanes, except those that would front directly on an adjoining alley.

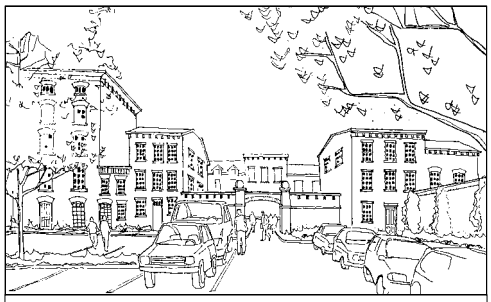
To efficiently use this space, several adjoining rear yards would need to be assembled and developed together. In many cases today, the rear yards include detached garages along the alleys; these would likely need to be demolished to facilitate efficient design. The Borough Zoning Ordinance should allow for, and even encourage, such an arrangement by waiving parking setbacks and enabling shared vehicular access drives. Then, landscape screening should be applied along the alley to protect adjoining

residential properties located on the other side of the alley.

Pedestrian access from the parking lots to the downtown streetscape should be provided by at least one mid-block landscaped walkway. Such walkways should be well lighted for safe nighttime passage and security. They should also reflect the desirable amenities of the downtown streetscape (landscaping, benches, old-style light fixtures, archways, modest directional signage, waste receptacles, etc.).



To implement this District, it is recommended that the Borough initially encourage private property owners to construct and operate the lot. Then they can offer leases to nearby businesses that need additional off-street parking to serve their proposed use. If private efforts fail, then the Borough may have to undertake a more "top-down" governmental approach. In any event, local officials will need to aggressively promote this concept within the community as part of its redevelopment campaign, and convince downtown businesses of the need to include their respective properties within the overall design. Should the Borough assume responsibility for this project, it should investigate the use of fees-in-lieu of off-street parking for uses that cannot provide for their required parking and must rely upon the common parking lot.



Ground-level view of mid-block walkway from common parking lot toward Street.

To potentially reduce the need for parking within the Boroughs, the Region should lobby the Centre Area Transportation Authority to provide bus service to downtown Centre Hall and Millheim Boroughs and several key stops along PA Routes 45 and 192 at the Highway Commercial areas.

The Borough's streetscapes are attractive and functional; however, some beautification would promote a cohesive and coordinated sense-of-place. ***The Boroughs should consider streetscape beautification projects that would provide for uniform and ADA-compliant sidewalk designs, street and directional signs, historic lighting fixtures, standard benches, tree grates and trash receptacles. In addition, a program of tree rescue and replacement should also be implemented. The Boroughs should constantly monitor grant monies that would be available for such projects. Assistance with grant programs is available through the Centre County Planning Office.***

The Home Town Streets and Safe Routes to School Program (HTS/SR2S) is a Federal reimbursement program established with the intent of improving downtown and commercial center streetscapes and providing physical improvements that promote safe walking and biking passages to our schools. Typical improvements provided by this

program include sidewalk improvements, street lighting, crosswalks, bicycle amenities, signage, curb extensions and some traffic calming projects among others. This program is not intended for buildings, facades, general paving, stormwater management, traffic signals or personnel expenses related to a Main Street Manager.

The Centre County MPO and Centre County Planning Office staffs are currently working with Millheim and Centre Hall Boroughs to develop potential Home Town Streets projects that may be considered in future funding rounds. There have yet to be specific plans developed for these projects; however, both Boroughs have expressed interest in sidewalk improvements through their respective central business districts and the possible addition of "vintage style" street lighting and other amenities such as benches and planters. Centre Hall Borough has also discussed making physical improvements to the walking/biking routes that serve the Centre Hall-Potter Elementary School. ***Both Boroughs should commit the time and resources to complete these Home Town Streets projects through physical implementation. In addition, Gregg Township Officials have expressed an interest in undertaking a similar project for the Village of Spring Mills.***

In addition, these central areas can offer valuable housing opportunities for those persons who can benefit from proximity to nearby goods and services and/or cannot afford their own residence. Borough officials, however, are concerned that some property owners may wish to convert their entire buildings into apartments. This would certainly erode the potential commercial appeal of this district and create even more parking shortages in the downtown area. To overcome these problems, ***it is recommended that the upper level apartments be permitted only as accessory to the principal commercial uses of street level floor space.*** In this manner commercial potential is sustained and residential parking demands would largely occur in the evening after businesses have closed.

Highway Commercial (HC) **-** Unlike many other areas within Central Pennsylvania, the Penns Valley Region has a relative lack of strip highway commercial development. This is particularly surprising given its reliance upon several key highways that cross the valleys. The existing areas are generally confined in size and located near the Region's Boroughs and Villages. Given this Plan's goal to promote local business ownership, new highway commercial areas are planned in configurations that promote a local scale orientation. These settings will accommodate a wide range of commerce and businesses that are too large or intensive to adapt to a "downtown" setting. In addition, vehicle-related sales and services often involve outdoor storage that presents impact too great to integrate within the tight Borough streetscape and will be located at the edge of town. For these reasons a separate Highway Commercial area is planned in various locations where these uses have evolved and can offer convenient service to local residents and commuters.

Existing highway commercial use in Millheim Borough

The principal locations acknowledge the existing land use pattern plus adjoining access to the Region's most-heavily traveled corridors. The following presents the unused/underused development potential within this category in each location:

Areas Planned for Highway Commercial Development								
Location	Centre Hall	Spring Mills (Gregg)	Aarons-burg (Haines)	Madison burg (Miles)	Millheim	PA45 (Penn)	Routes 332/45 (Potter)	Region
Acres	0	5	162	2	8	16	35	228

The areas have been sized and configured to allow for coordinated developments and shopping centers that share access drives, off-street parking and loading, signs and stormwater management facilities. Since many of the uses already in place have developed without these shared features, it will take time for this site coordination to spread throughout the area. ***All municipalities should develop suitable regulations that require and/or strongly encourage shared development features.*** This can be done by limiting access drive locations, waiving setbacks for shared features, providing lot coverage bonuses and other design incentives for shared features, and generally communicating to prospective developers the Region's desire for these coordinated designs. ***Each municipality should immediately incorporate these zoning requirements, then continuously advocate coordinated designs in the coming years as existing businesses seek to change and new ones emerge.*** These changes should help to improve the function and appearance of adjoining roads including those that act as gateways to the Region and Boroughs.

Existing highway commerce along PA Route 45 in Potter Township; the Region's largest.

Beyond these shared features, other contemporary design features should also be used. First, the use of front yard landscape strips should be required along the road. ***These strips will help to define road/site travel lanes and soften the appearance of the roadside and offer shade for pedestrians.*** A minimum 10-foot wide landscape strip should be required, along with ornamental shade trees and sidewalks.

Off-street loading spaces and outdoor storage areas (exclusive of outdoor sales) should be screened from the roads and adjoining properties.

Sign standards should reflect the vehicle-oriented customers of the area, but should produce signs that are informative without being loud and obtrusive. It is important

that signs be large enough so that motorists can easily read them at prevailing speed limits. The number of signs should be limited so that they do not compete for driver's attention, and the use of coordinated signage is encouraged.

On-site lighting of buildings and surrounding areas should employ hooded or screened fixtures that confine glare to the site, and security lighting should be directed toward the building, rather than the area around it. Lighting levels should be established to enable the detection of suspicious movement, rather than the recognition of definitive detail.

Public address systems used in external areas should be designed to keep audible impact at ambient levels.

Again, since many of the Region's existing commercial uses lack these features, their provision will take time and patience. Nonetheless, ***local zoning ordinances should require these features of all uses. This will make the existing uses nonconforming, and allow local officials to negotiate with existing business owners for these features as existing uses grow and adapt.***

Next, it is noted that a number of scattered highway-oriented businesses exist throughout the Region. The absence of these uses within the planned Highway Commercial area reflects a vision of the future for the Region where such uses are confined to areas served by public utilities and services. Some of these scattered businesses could be permitted within their respective areas (eg. Conservation & Agriculture) as they would be logical uses within those contexts. For example, a country inn or bed & breakfast is an appropriate use within the Conservation and Agricultural areas. Similarly, a nursery and garden center can also be justified within an Agricultural area. Conversely, many of these uses are not consistent with Conservation or Agricultural settings unless they are limited in scale as accessory occupations (home, rural and farm occupations). In such cases these uses should be regulated as nonconforming uses by local zoning ordinances.

Finally, by far the largest Highway Commercial area is planned just east of the Village of Aaronsburg in Haines Township. This designation correlates with the outcome of the Township's independent comprehensive planning process undertaken during the preparation of this Regional Plan.

E. INDUSTRIAL (I & Q) (Industrial, & Quarry/Mining)

Industrial (I) – As per goals expressed for this Plan, most municipalities will share in the Region's industry; only Centre Hall Borough but can be served by industries in nearby Potter Township.

Industrial is suitable for a wide range of industrial activities that contribute to the well-being of the Region by diversifying its economy and providing valuable employment opportunities. ***Regulations should allow for small, start-up business and light industry as permitted uses. However, more intensive uses (listed below) should require the obtainment of a conditional use:***

- Billboards;

- Heavy equipment sales, service and repair, such as excavation machinery, farm equipment, commercial trucks, buses, mobile homes, trailers, and other similar machinery;
- Truck or motor freight terminals;
- Warehousing and wholesale trade establishments;
- Adult-related uses;
- Junkyards;
- Quarries and mines;
- Sawmills;
- Septage and spent mushroom compost processing;
- Slaughtering, processing, rendering, and packaging operations;
- Solid waste disposal, and processing facilities; and,
- Any other industrial activity that presents adverse impact to surrounding areas.

By requiring a conditional use review local officials realize the following benefits:

(1) require the developer to fully explain the nature of the proposed uses;
(2) give local citizens the opportunity to express support or concern over the use;
(3) application of specific criteria aimed at minimizing adverse impact to the community and adjoining properties;
(4) provide the Region time to engage professional review assistance of the use and its expected impacts; and,
(5) allow local officials to attach reasonable conditions of approval to mitigate any negative effects of the use.

Regulations should also limit the number of driveway cuts and freestanding signs, and manage outdoor storage, off-street loading and parking. ***Design standards should encourage functional, yet attractive, sites when viewed from adjoining properties and roads. This involves required landscaping, screening and buffering, and dumpster storage standards.***

Additionally, prospective industries should demonstrate compliance with all applicable Federal and State operations standards. Each municipality should adopt noise and lighting standards that will ensure compatibility from one site to the next.

Hanover Foods industry along PA Route 45 in Potter Township; the Region's largest industry.

The principal locations acknowledge the existing land use pattern plus adjoining access to the Region's most-heavily traveled corridors. The following presents the unused/underused development potential in each location:

Areas Planned for Industrial Development								
Location	**Centre Hall**	**Gregg Twp.**	**Haines Twp.**	**Miles Twp.**	**Millheim Borough**	**Penn Twp.**	**Potter Twp.**	**Region**
Acres	0	83	0	33	24	8	51	199

Quarries and Mining (Q) As reported in Chapter VII (Existing Land Use) the Region has one active large quarry just southeast of Aaronsburg, about 1800 feet south of PA Route 45. This 183-acre quarry is also screened via a natural berm between it and the highway. In addition, the Black Hawk Quarry is an inactive site that maintains a permit for the extraction of dolomite in northwest corner of Potter Township. Given these sites' considerable reserve capacity, no additional land area has been planned in this category. In short the Region is confident that it has already provided for its fair-share of such uses without the need for further expansion

Con-Stone Quarry, the Region's largest

Although no new areas are planned, the Region must regulate ongoing operations and their subsequent reclamation. Because of their intensive operations, and potentially detrimental impacts, quarry and mining operations are usually highly controversial***. For this purpose a new Quarry category is recommended. This new category should permit agricultural uses, public uses and utilities, and parks and recreation by right; quarries, mines and processing and/or recycling of mineral materials and solid waste disposal sites should be allowed only through the obtainment of a conditional use. Conditional uses should be strictly regulated with numerous specific use criteria that consider their grave impact on nearby neighborhoods, roads, and the environment. Finally, all quarrying should be required to at all times demonstrate compliance with the Pennsylvania Noncoal Surface Mining Conservation and Reclamation Act (as may be amended). As part of compliance with this State Act, quarry owners are required to propose a reclamation land use once quarrying operations cease. Local officials should carefully scrutinize such reclamation uses to determine their suitability with long-range comprehensive planning for that locale.***

As stated above, this plan only recommends the existing quarry locations. Should any of these uses require expansion, or a new use be proposed, local officials can scrutinize potential locations via a rezoning hearing process. At the same time, they can review an accompanying conditional use application, thereby streamlining the development approval process.

F. Public / Non-Profit

As reported in Chapter V (Existing Land Use) the Region's public and nonprofit uses comprise 372 acres or about 0.2 percent of the total land area. These uses have been depicted as they exist to assist in user orientation of the Future Land Use Map. Since zoning regulations that would limit uses to ones of a public nature would be considered confiscatory, it is not recommended that the municipalities adopt public use categories. ***Rather, these public uses should be permitted within their respective areas as they occur throughout the Region and are depicted on the Future Land Use Map.***

XI. Implementation

A. LEGAL REQUIREMENTS

The development of this Plan has been an ambitious and educational process. Goals have been deliberately set high and many specific recommendations have been made. But this is just the beginning. The Plan outlines a grand strategy, but action and dogged determination will be necessary if the Plan's goals are to be achieved. This final Chapter will provide a list of tasks that must be undertaken to optimally determine the Region's future, but before actual assignments are listed, it is important to understand how each municipality within the Region is to interact in this regional undertaking.

Recent amendments to the Municipalities Planning Code (MPC) address this issue directly. Article 11 of the MPC is entitled Joint Municipal Planning Commissions but it provides much more than this subject. Article 11 enables regional planning and specifies its objectives. It defines municipal versus County roles in the regional planning process. And finally, it provides for inter-municipal implementation agreements. Section 1104 states:

> *(a) In order to implement multi-municipal comprehensive plans, under section 1103 counties and municipalities shall have authority to enter into intergovernmental cooperative agreements.*
>
> *(b) Cooperative implementation agreements between a county and one or more municipalities shall:*
>
> *(1) Establish the process that the participating municipalities will use to achieve general consistency between the county or multi-municipal comprehensive plan and zoning ordinances, subdivision and land development and capital improvement plans within participating municipalities, including adoption of conforming ordinances by participating municipalities within two years and a mechanism for resolving disputes over the interpretation of the multi-municipal comprehensive plan and the consistency of implementing plans and ordinances.*
>
> *(2) Establish a process for review and approval of developments of regional significance and impact that are proposed within any participating municipality. Subdivision and land development approval powers under this act shall only be exercised by the municipality in which the property where the approval is sought. Under no circumstances shall a subdivision or land development applicant be required to undergo more than one approval process.*
>
> *(3) Establish the role and responsibilities of participating municipalities with respect to implementation of the plan, including the provision of public infrastructure services within participating municipalities as described in subsection (d), the provision of affordable housing, and purchase of real property, including rights-of-way and easements.*
>
> *(4) Require a yearly report by participating municipalities to the county planning agency and by the county planning agency to the participating municipalities concerning activities carried out pursuant to the agreement during the previous year. Such reports shall include summaries of public infrastructure needs in growth areas and progress toward meeting those needs through capital improvement plans and implementing actions, and reports on development applications and dispositions for residential, commercial, and industrial*

development in each participating municipality for the purpose of evaluating the extent of provision for all categories of use and housing for all income levels within the region of the plan.

(5) Describe any other duties and responsibilities as may be agreed upon by the parties.

(c) Cooperative implementation agreements may designate growth areas, future growth areas and rural resource areas within the plan. The agreement shall also provide a process for amending the multi-municipal comprehensive plan and redefining the designated growth area, future growth area and rural resource area within the plan.

(d) The county may facilitate convening representatives of municipalities, municipal authorities, special districts, public utilities, whether public or private, or other agencies that provide or declare an interest in providing a public infrastructure service in a public infrastructure service area or a portion of a public infrastructure service area within a growth area, as established in a county or multi-municipal comprehensive plan, for the purpose of negotiating agreements for the provision of such services. The county may provide or contract with others to provide technical assistance, mediation or dispute resolution services in order to assist the parties in negotiating such agreements[1]*.*

Based upon the preceding language, the Region has the ability to develop an implementation agreement to operationalize the Plan. Such implementation agreement should be developed with the assistance of local officials, Centre County Planning Office staff, solicitors and planning consultant(s). It should be detailed enough to convey the expectations of each municipality yet simple enough to be understood and not discourage involvement. It should establish review thresholds for changes to the Plan and subsequent zoning policies that ensure a proper regional allocation of land use but do not impose unnecessary reviews that could overburden local administration.

B. SCHEDULE OF SPECIFIC RECOMMENDATIONS

In developing an implementation agreement as enabled by the MPC and recommended above, ***the following specific action tasks have been identified with bold italicized print throughout this Plan.*** The task along with its responsible parties, suggested time frame and a reference where further discussion can be found within the plan are provided in the following schedule. These tasks should form the basis of the inter-municipal agreement and can be used as an agenda of action by local officials over the life of the Plan. Short term items are meant for action as soon as local resources would permit (1-2 years); long-tern items are beyond immediate attention and may require prerequisite actions or events; and, ongoing items suggest a continuous timeline for action and attention.

It should be noted that this schedule lists various groups and agencies as responsible parties in fulfilling specific actions who were not part of this planning process. These "other" parties may share in the responsibility to achieve the recommended action and without their assistance would lessen the chance for success within the Region. This Plan is not suggesting that it defines their agenda but is indicating their important role in fulfilling the recommended strategy.

[1] http://www.inventpa.com/docs/MPCode.txt (1/23/03)

Recommended task:	Responsible Parties	Time-frame	Plan reference (pages)
1. It is important for all persons involved and/or interested in the future of the Penns Valley Region to read and understand this Plan. Local decision-makers should keep the Plan handy when evaluating future development proposals, service adjustments or public investments.	Local staff, & officials from each municipality	ongoing	3
Recommendations related to the protection of natural & cultural features. (Chapter III)			
2. New public and industrial water supplies should be located in the vicinity of carbonate formations to take advantage of the abundant groundwater supplies. However, such sources should be routinely monitored and treated as necessary due to the vulnerability of this groundwater from contamination via the widespread solution channels. Local officials should actively engage in pursuits to protect these invaluable water resources in accordance with the Centre County Comprehensive Plan and the Susquehanna River Basin Commission Groundwater Management Plan (eg. Wellhead, springhead & special protection waters)	All municipalities	ongoing	16-19
3. The geologic formations of the Region's upland settings can only supply groundwater to serve a sparse rural development pattern and local officials should adjust zoning densities accordingly. Such areas should be reserved for low intensity rural uses with limited permitted lot coverages and woodland preservation requirements that will reduce potential impact on groundwater volumes and quality.	All municipalities	Short term	16
4. Commit to the preparation of an Act 167 Stormwater Management Plan so that specific stormwater management strategies can be developed and implemented via ordinance. Also implement various groundwater protection strategies.	All municipalities& the Penns Valley Conservation Association	Long term	18-19
5. Prime farm soils and active farms should be protected by strengthening and expanding agricultural areas.	All Townships and Millheim Borough	Short term	19-20
6. Proposed developments should avoid soils with severe development constraints as may or may not be regulated by local zoning and subdivision and land development (SLDO) ordinances.	All municipalities	Short term & ongoing	20-21
7. Local officials should take active steps to preserve and protect State-designated high-quality and exceptional value watersheds from the ills of inappropriate land use and local activities that could threaten their integrity.	All municipalities	Short-term & ongoing	23-28
8. Adopt waste handling and waste disposal reporting requirements as part of local zoning or other ordinances. Such provisions should require prospective uses to demonstrate compliance with all applicable local, state and Federal waste handling and disposal regulations.	All municipalities	Short-term & ongoing	26-27
9. Each of the Region's municipalities should apply riparian buffer standards to developments that seek to locate within State-designated high-quality and exceptional value watersheds.	All municipalities	Short-term & ongoing	27-28
10. Municipal officials should consider the adoption of various measures to protect the Region's wetlands, including modified road maintenance standards, an environmental impact assessment (EIA) requirement in their respective SLDO, land use and development limitations, and a homeowner educational program.	All municipalities	Short-term & ongoing	28-30

Recommended task:	Responsible Parties	Time-frame	Plan reference (pages)
11. Periodically review local floodplain regulations by local, County and State agencies and then incorporate updates as necessary to remain eligible under the National Flood Insurance Program.	All municipalities	Short-term	30-32
12. Continue to rely upon Centre County for administration of stormwater management ordinances until such time as more detailed stormwater management strategies can be derived from a future Penns Valley Region Stormwater Management Plan.	All municipalities	ongoing	32-33
13. Consider the use of Low-Impact Development Techniques (LID) as part of any future stormwater management planning.	All municipalities	Short-term & ongoing	33
14. Require an Environmental Impact Assessment prior to any subdivision approval within identified natural habitat areas.	All municipalities	Short-term & ongoing	34-36
15. Develop and adopt sound forestry management regulations that can protect the sensitivity of wooded areas and adjoining neighbors from the deleterious impacts of uncontrolled logging uses and operations.	All municipalities	Short-term & ongoing	37 & 212
16. Adopt woodland preservation requirements.	All municipalities	Short-term & ongoing	38
17. Keep abreast of Federal & State initiatives to manage the threats from invasive forest species.	All municipalities	ongoing	38
18. Support the efforts of the Lumber Heritage Region	All municipalities	ongoing	39-41
19. Educate the public about the Pennsylvania Cave Protection Act and seek to incorporate these unique features within resource and open space protection policies.	All municipalities	ongoing	41-43
20. Protect unique geologic features	Gregg, Haines, Penn & Potter Twps.	ongoing	43-44
21. Protect notable trees.	All municipalities	ongoing	44-45
22. Development of flexible zoning or other regulations that would enable adaptive use of historic tenant houses in rural settings.	All Townships and Millheim Borough	Short term	46
23. Development of flexible zoning regulations that would enable adaptive use of historic backyard barns in Aaronsburg.	Haines Township	Short term	49
24. Recognition of four-over-four row houses in local zoning regulations if and when they are adopted.	Miles Township	Short term	50-51
25. Continue to administer its effective Historic Preservation programs to the benefit of current and future generations.	Millheim Borough	ongoing	55-56
26. Gauge public support for voluntary historic preservation techniques.	Centre Hall & Gregg, Haines Miles, Penn & Potter Twps.	Long-term	59-60
27. Provide for protected agricultural settings around the Region's Century Farms.	Gregg, Haines, Penn & Potter Twps.	ongoing	60-62
Recommendations related to demographics. (Chapter IV)			
28. Special outreach opportunities and programs should be targeted to assist the high percentage of persons with incomes under the poverty level.	Haines, Miles & Penn Twps. & Millheim Borough	ongoing	70

Recommended task:	Responsible Parties	Time-frame	Plan reference (pages)
29. Provide for a target mix of housing types for all income levels to offer greater housing diversity within the Region.	All municipalities	Short-term & ongoing	73
Recommendations related to the delivery of public facilities. (Chapter VII)			
30. Closely monitor growth within the Region so as to proactively plan for facility expansion well in advance of actual demand for space.	School District & Municipalities	Short-term & ongoing	105
31. Improve the process of residential development review and allocate manpower and resources so as to properly respond to such applications and provide meaningful feedback to the municipalities.	School District & Municipalities	Short-term & ongoing	105
32. Revise subdivision and land development application requirements so that adequate and timely notification to the School District is assured.	All municipalities	Short-term & ongoing	105
33. Create a new Regional Recreation Board (RRB).	All municipalities& School District	Short-term & ongoing	105-106
34. Apply to the PA Department of Conservation & Natural Resources (DCNR) for a grant to prepare a peer-to-peer review of regional recreation service.	RRB	Short-term	105-106
35. Add 10 more acres of community parkland by year 2020.	RRB	Long-term	117-118
36. Add multi-purpose athletic fields at the School District campus.	RRB & School District	Short-term	118
37. Periodically gauge recreation preferences among all age groups and ensure that the, then, current preferences are accommodated by local park improvements.	RRB	Ongoing	120
38. Add more variety to its neighborhood parks improvements and facilities.	RRB	Ongoing	120-121
39. Consider the keys to designing, constructing and operating a successful skateboard park.	Haines Twp & Millheim Borough	Long term	121
40. Respect the integrity of the Mid-State trail by isolating it from planned intensive urban land uses.	All municipalities	ongoing	122-123
41. Obtain an appraisal of fair market value of land for determination of fees-in-lieu of parkland dedication.	All municipalities	Short-term	123-125
42. Adopt mandatory parkland dedication standards	All municipalities or County	Short-term	123-125
43. Allocate revenues of mandatory dedication across the Region	RRB	Ongoing	125
44. At such time as demand warrants, undertake a regional police feasibility study with assistance from the PA Department of Community Economic Development (DCED).	Affected municipalities	Long-term	127-128
45. Evaluate policies that affect availability of local volunteers.	All municipalities and fire ambulance companies	ongoing	130-131

Recommended task:	Responsible Parties	Time-frame	Plan reference (pages)
46. Enhance sources of daytime volunteer firefighters and emergency medical transports (EMTs).	All municipalities and fire ambulance companies	ongoing	130-131
47. Formalize program of specialized training throughout the Region.	All municipalities and fire ambulance companies	ongoing	132
48. Mount an educational and media campaign to cultivate awareness among the newly-arrived residents of the need for their financial and manpower support to sustain volunteer firefighting and ambulance services.	All municipalities and fire ambulance companies	ongoing	132-133
49. Apply to the PA DCED for the preparation of a technical review, as part of its Shared Municipal Service Program, at no cost to the Region to examine the adequacy of the Region's equipment to provide adequate service.	All municipalities and fire ambulance companies	ongoing	132-133
50. Publicize the names of contributors to local volunteer emergency service agencies.	Local officials	Annually	134
51. Explore the partial and gradual use of "other" funding mechanisms.	Local fire and ambulance companies and local officials.	Long-term	134
52. Adopt uniform driveway design standards that provide for adequate emergency vehicle access.	All Townships	Short-term	134-135
53. Provide detailed geographic information system (GIS) mapping to each emergency service provider.	Centre County	Ongoing	135
54. Install dry hydrants in rural areas of the Region.	Local fire companies and local officials.	Long-term	135-136
55. Adjust zoning, SLDO and other regulations to ensure adequate emergency access and integrate local fire companies in the development review process for those wishing to deviate from such regulations.	Local fire companies and local officials.	Long-term	136 & 200
Recommendations related to public utilities. (Chapter VIII)			
56. Initiate a long-range public sewage treatment strategy with some urgency and commit to implement its findings sometime by the mid 2010s.	Haines, Miles & Penn Twps. & Millheim Borough	Long term	157
57. Adopt an on-lot sewer disposal system maintenance ordinance	All Townships	short term	157, 201 & 206
58. Require an alternate on-lot sewer system in rural areas.	All Townships	ongoing	157, 201 & 206
59. Target future growth into compact public water service areas.	All municipalities	ongoing	166
60. Gauge public support for a source-separation and collection program for recyclable materials.	All municipalities	ongoing	167-168

Recommended task:	Responsible Parties	Time-frame	Plan reference (pages)
61. Make use of PA One-Call system with respect to use and developments proposed along the Region's overhead and underground utility rights-of-way.	Residents and developers.	Ongoing	169
Recommendations related to transportation. (Chapter IX)			
62. Adopt comprehensive traffic impact study regulations within the SLDO.	CCPO	Short-term	173
63. Upgrade arterial roads to minimum recommended standards.	Gregg, Haines & Potter Twps.	Long-term	175
64. Upgrade collector roads to minimum recommended standards.	Gregg, Miles & Potter Twps. & Millheim Borough	Long-term	177
65. Compare existing local road conditions with recommended standards and initiate a campaign of local road improvement in those areas experiencing greatest traffic flow and/or accident frequency.	All municipalities	Ongoing	177
66. Adopt uniform road design criteria across the Region.	All municipalities	Short-term	177
67. Reduce and discourage the number of driveway cuts along the Region's arterial and collector roads.	All municipalities	Ongoing	178 & 181
68. Encourage the use of combined access drives, signs, and off-street parking and loading for businesses that are proposed along arterial and collector roads.	All municipalities	Ongoing	178-182
69. Request that PA State Police target high-accident locations for speeding enforcement.	All municipalities	Ongoing	182
70. Periodically prepare and update a list of key areas and locations that need safety improvements.	All municipalities	Ongoing	1846-185 & 189
71. Cooperate with various agencies in the completion of the many transportation projects programmed within the Region.	All municipalities	Ongoing	185-190
72. Complete various locally-scheduled road improvements.	All municipalities	Ongoing	185-189
73. Advocate the designation of PA Routes 45 & 192 as scenic byways to PENNDOT.	All municipalities, CCMPO & CCPO	Long term	189-190
74. Firmly advocate the alignment of the SCCCTS along the existing US Route 322 corridor.	All municipalities	Long-term	190-191
75. Revise SLDO policies to require pedestrian access and street linkages with adjoining neighborhoods via ADA-compliant sidewalks and curbs.	All municipalities	Short-term	191-192
76. In existing neighborhoods that do not have sidewalks, local officials should seek to retrofit some pedestrian linkage with nearby civic uses, commercial areas and adjoining neighborhoods of the Boroughs.	All municipalities	Long-term	192
77. Make accommodations for bus stops at prominent locations in anticipation of future bus service.	All municipalities	ongoing	192
78. Planned neighborhoods should be fitted with street designs that enable safe bicycle travel and offer an alternative mode of daily commuting between employment and activity centers.	All municipalities	ongoing	192-194
79. Identify several bicycle loop routes in future transportation improvement program funding cycles, particularly if scenic bypass status is proposed.	All municipalities, CCMPO & CCPO	Long term	193-194
80. Complete needed shoulder widenings to arterial and collector roads to facilitate safe horse-and-buggy travel and rural bicycling routes.	All municipalities	ongoing	175, 177 & 194

Recommended task:	Responsible Parties	Time-frame	Plan reference (pages)
81. Local officials should work with the CCMPO and CATA to study the feasibility of commuter bus service to the Penns Valley Region, and to address institutional and funding issues associated with the provision of fixed route bus service to the Region.	All municipalities	Long term	195-196
82. Coordinate land use and zoning regulations that do not conflict with the safe operation of local airports.	Gregg & Potter Twps.	Ongoing	197
Recommendations related to future land use. (Chapter X)			
83. Adopt regulations and other techniques that are generally consistent with the recommendations contained within Chapter X.	All municipalities and/or Centre County	Short-term	197-200
84. Cooperate in the promotion of local zoning ordinances that achieve a level of land use protection needed to effectively manage growth within the Region.	All municipalities and/or Centre County	Long-term	198-200
85. Commit to updating the Comprehensive Plan by the year 2020.	All municipalities	Long-term	197
86. Effectively protect agricultural areas by restricting development in favor of normal farming operations and related secondary occupations.	All Townships and Millheim Borough	Short term	200-204
87. Protect Conservation areas by severely restricting development in favor of natural conservation and related secondary occupations, with design flexibility to tuck development amid scattered natural features and requires the submission of environmental impact reports .	All municipalities	Short term	205-210
88. Develop zoning language to permit forestry use by right in all zones throughout the Region with suitable management requirements.	All municipalities with zoning ordinances	Short-term	207 & 210
89. Implement Riparian Buffer Overlays.	All municipalities	Short-term	207 & 211
90. Standardize several new Residential areas in which planned neighborhoods can grow with the use of a wide range of public utilities and services that reflect existing development types and their respective design features.	All municipalities	Short-term & Ongoing	214-224
91. Strengthen accessory use regulations within the Residential areas.	All municipalities	Short-term	218-219
92. Enable conversion apartments within the Boroughs' and Villages' neighborhoods.	All municipalities	Short-term	219
93. Recognize Manufactured Home Park areas that reflect existing conditions and allows for limited expansion.	All municipalities	Short-term	222-223
94. Identify Mixed Use areas that permit limited conversion businesses within residential settings with shared and compatible features.	Centre Hall & Millheim Boros Gregg, Haines & Miles Twps.	Short-term	223-224
95. Identify new Village Commercial areas that reflect the rural context, provides for local conveniences, discourages demolition of historic buildings, promotes shared features and manages outdoor activities.	Gregg, Haines & Miles Twps.	Short-term	224-225

Recommended task:	Responsible Parties	Time-frame	Plan reference (pages)
96. Adopt a new Central Business District that promotes pedestrian scale uses and designs, discourages demolition of historic sites, favors on-street parking, directly abuts the sidewalk, promotes adaptive reuse and permits upper story apartments.	Centre Hall & Millheim Boros	Short term	225-230
97. Promote revitalization of CBD through demonstrated support for reinvestment, support temporary tax relief for initial business start-up, development of additional parking lots and beautification of the streetscape.	Centre Hall & Millheim Boros	Ongoing	225-230
98. Complete ongoing Home Town Streets/Safe Routes to School projects through the CCPO to enhance and beautify the streetscape.	Centre Hall & Millheim Boros	Short term	230
99. Identify Highway Commercial areas for businesses that are too large or intensive for the CBD, and encourage the use of shared design features (eg. parking, loading, signs, access, stormwater, etc.)	All Townships and Millheim Borough	Short-term	230-232
100. Identify Industrial areas to permit small-scale light industry by right but requires greater scrutiny for other heavier uses.	All Townships and Millheim Borough	Short-term	232-234
101. Develop a new Quarry Zone that permits rural land uses by right and provides for quarries and mines by conditional use. Conditional uses should be strictly regulated with numerous specific use criteria that consider their grave impact on nearby neighborhoods, roads, and the environment.	Haines & Potter Townships	Short-term	234
102. Enable public uses to be located within their respective land use contexts.	All municipalities	Ongoing	235
Recommendations related to implementation. (Chapter XI)			
103. Consider development of a suitable Implementation Agreement that establishes review thresholds for changes to the Plan and subsequent zoning policies to ensure a proper regional allocation of land use but does not impose unnecessary reviews that could overburden local administration.	All municipalities	Short term	236-237

The preceding table plots an ambitious list of recommended activities. These tasks are vital if the Region is to optimally manage its growth and development and to plan and implement its "vision" for the future. The completion of many of these tasks should result in an improved quality of life within the Region. Municipal officials are responsible to monitor and evaluate the implementation strategy aimed at achieving the locally-expressed objectives and resultant recommendations set forth in this Plan.

Cooperation among all administrative bodies and levels of government is an essential component to a streamlined and successful implementation strategy. The continued use of public participation is also a very important duty of municipal officials. If, for some reason, the recommendations of this Plan do not appear to address the, then-current conditions, municipal officials should not hesitate to amend portions of this Plan or any other policy to rectify those deficiencies.

This Plan holds a wealth of information that can be easily accessed and understood. Its implementation will help residents, businesses and visitors know the Plan is vital, and that the future of the Region is deliberate, and the result of considerable analysis and public scrutiny.